

Chesternie

Memorandum Department of Planning & Public Works

To:

Planning and Zoning Committee

From:

Mike Geisel, Director of Planning and Public Works

Date:

9/17/2007

RE:

Natural Grasses Ordinance

Summary

At their first meeting in August, 2007, the Planning and Zoning Committee considered and tabled a request to adopt an ordinance relative to natural grass landscapes, specifically an ordinance modeled after the Creve Coeur Ordinance recently passed.

Department Staff have reviewed both the City of Chesterfield's current ordinance, as well as the Creve Coeur Ordinance. We are in unanimous agreement that the current City of Chesterfield Ordinance #385 is inadequate and should be revised. This ordinance provides no exemptions for ornamental grasses and native plants.

Staff is also unanimous in believing that the Creve Coeur Ordinance is fundamentally flawed and would be unenforceable for the City of Chesterfield. The proposed ordinance lacks definition and specificity and has practices that we believe the City of Chesterfield would find objectionable.

Finally, it is equally clear that the City of Chesterfield's code enforcement section lacks the experience, training and\or education to accurately differentiate between acceptable and prohibited plant material. Within the last few years the City's Code Enforcement personnel have frequently faced erroneous assertions that landscapes were not nuisances, but natural landscapes.

I encourage you to review the attached detailed review memorandum for specifically identified conflicts and concerns within the proposed ordinance.

Recommendation

The Department of Planning and Public Works understands and concurs that landscapes consisting of natural grasses and wildflowers not only be permitted, but encouraged. We are also convinced that the proposed ordinance is inadequate for our needs and cannot be enforced by City Staff as currently provided. If the Committee desires to proceed with an ordinance revision to facilitate such landscapes, the Department is prepared to draft an alternative bill for your consideration.

Cc:

Michael G. Herring, City Administrator

Rob Heggie, City Attorney

MEMORANDUM

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DATE:

September 14, 2007

TO:

Michael O. Geisel, Director of Public Works and Planning

Susan Mueller, Principal Engineer

FROM:

Annissa G. McCaskill-Clay, Assistant Director of Planning

RE:

Creve Coeur Ordinance 4071 (Natural Grasses Ordinance)

Per the direction of the Planning and Zoning Committee at its August 9, 2007 meeting, Staff has reviewed the above-referenced ordinance relative to the City of Chesterfield's ability to enforce similar standards with our current regulations.

Staff currently utilizes one (1) main tool1 for enforcement of complaints regarding "weeds and tall grass:"

City of Chesterfield Ordinance 385: This ordinance was approved in 1989 and has not been updated or amended since its initial approval. Ordinance 385 is generally referred to as the "nuisance ordinance." Section 2 provides defines nuisances; and for the purposes of this review, staff references Section 2(f): "All russian, Canadian or common thistle, wild lettuce, wild mustard, wild parsley, ragweed, milkweed, ironweed, poisonous plants or shrubs and all other noxious weeds, grass and vegetation which have attained a height of twelve (12) inches or more..."

Staff concurs with Principal Engineer Susan Mueller's analysis. Ordinance 385 provides no means for exemption for ornamental grasses and native plants. As currently written, if a complaint is lodged with the Department of Planning and Public Works, there is no means via Ordinance 385 to provide an exemption for ornamental grasses and native plants. In addition, Staff could find no definition of "ornamental grasses" or "native plants" in *any* current City of Chesterfield ordinance or standard. Review and revision of current regulations is sorely needed.

In addition to the lack of the definition quagmire, there is the issue of staff education and expertise. The Department of Planning and Public Works currently have no staff members with experience identifying natural grasses and vegetation or authentic native planting practices; such as placement, management of noxious weeds, etc. It would be difficult, if not impossible to effectively enact an ordinance similar to Creve Coeur Ordinance 4071 with out the key component of staff expertise and continuing education in addition to those issues outlined in Ms. Mueller's memorandum.

¹ Note that Ordinance 1932 (the Property Maintenance Ordinance), while referencing conditions that "...increase the hazards of fire, accident, or other calamity; dilapidation; disrepair; structural defects; uncleanliness...dead or dying tree limbs or unsightly growth..." it makes clear that it seeks to provide further legislation to supplement existing zoning ordinances to "protect against significant interference with the general health and safety of the public..." It is therefore typically not used in matters regarding weeds and tall grass.

MEMORANDUM



DATE:

August 17, 2007

TO:

Mike Geisel, Annissa McCaskill-Clay

FROM:

Susan Mueller (

RE:

Review of Creve Coeur Native Grass and Tree Cultivation Ordinance

Bill Number 5066, Ordinance Number 4071

The Creve Coeur Ordinance Number 4071 has been reviewed on the basis of its compatibility with other Chesterfield regulations, as well as its effectiveness, constitutionality and enforceability. Applicable Missouri State Statues and policies of the Missouri Department of Conservation, the US Department of Agriculture and USEPA are considered. The John Marshall Law Review was studied for background in making the following recommendation. Copies of a few pertinent reference materials are attached.

The John Marshall Law Review, Vol 26, Summer 1993, Number 4, specifically discusses Weed Laws and the Natural Landscaping movement. Case law and general legal practices are discussed in this article to establish that an enforceable and constitutional Weed and Natural Landscaping ordinance must contain certain features. These features are as follows:

- The language of the ordinance should protect the fundamental right of residents to choose their own vegetation and landscaping.
- Restrictions should apply equally to all residents as well as to City, County and State agencies.
- A specific and definitive list of "weeds" such as the USDA list of Missouri State-listed Noxious Weeds should be used to clearly define vegetation that is not permitted.
- Other vegetation may be prohibited, but it should be specifically defined and should have a reasonable and factual basis for being prohibited. For example, the Missouri Department of Conservation lists exotic (non-native) vegetation from which additional plants could be selected for prohibition.
- Care should be taken in imposing a ban on all exotic (non-native) vegetation. Typical mono-turf lawns contain grass varieties that would meet the definition of exotic (non-native) vegetation.
- Height restrictions should be limited to property perimeters and other safety related issues such as creating a sight distance problem.
- The City's enforcement staff must be trained or certified to accurately identify the prohibited vegetation.
- Enforcement of the ordinance should be undertaken through due process of law.
- Aesthetic judgement should not be a consideration nor play a role in determining non-compliance or compliance with the ordinance.



Section 14-45 High weeds, high grass, and rank vegetable growth prohibited

The title of this Section 14-45 contains the term "rank vegetable growth". It is likely that it should have been written as "rank vegetation growth". In either case, many terms are used "weeds", "grass", and "rank vegetation" that do not appear to be clearly defined. Use of undefined terminology creates a subjective and relative standard which case law indicates will be found unconstitutionally vague. A law is void for vagueness where it does not clearly define what it prohibits. The terms "weed", "grass" and "rank vegetation" if not statutorily defined, must be ascribed their dictionary definitions. The meanings of these words vary dramatically depending on who is applying the definition. The weeds listed in this section do not match the list of noxious weeds, grass and trees found in the Chesterfield Ordinance 192, Section 20-1 (b) (6), nor does it match the Missouri State listed Noxious Weeds as issued by the USDA. A clearer definition of "Weeds" should be developed for Chesterfield. The list could perhaps include those Noxious Weeds listed by the USDA for the State of Missouri. It is possible that the Chesterfield list could also include several plant species listed by the Missouri Department of Conservation in its Vegetation Management Guidelines.

Section 14-46 Exemptions to height restrictions.

This section begins by restricting the height of "ornamental grasses" which is another term that does not appear to have been clearly defined. Since ornamental grasses are the only plant type mentioned, all other plant types are apparently allowed to obstruct sight distance. The second sentence in this paragraph requires ornamental grasses and native plants to be kept to a height of 7 inches within a 5 foot wide strip along the entire boundary of a property. The 7 inch height restriction for "weeds" in the Creve Coeur Ordinance does not match the 12 inch height restriction for "weeds" listed in the Chesterfield Ordinance.

The John Marshall Law review finds that when written correctly, setback laws are a workable compromise that allow for unregulated growing of natural vegetation on a majority of the lot. The setback solves practical problems caused by vegetation such as blocking driver sight distance, and vegetation hanging into neighbor yards, or encroaching into sidewalks. A setback requirement however, should be worded so that it does not apply to vegetation in Chesterfield "Tree Preservation" areas.

Section 14-47 Dead trees, bushes, shrubbery, or debris prohibited

If a standing tree dies or falls in the middle of 10 acres of wooded ground, and it isn't visible to any neighboring property, this section still requires that the dead tree be removed. In addition, this section makes adjacent private property owners responsible for removing dead trees on City, County and State right-of-way. Standing dead vegetation language must be carefully worded on the basis of protecting the safety and welfare of neighbors and the general public without forcing every dead tree, dropped limb, and fallen leaf to be removed. It is common practice, for municipalities to promote or to allow adjacent property owners to mow, pick up debris, beautify and otherwise maintain public right-of way. This practice, however, would likely be found unconstitutional if it were made into an actual requirement as in the Creve Coeur ordinance.

Section 14-51 Removal by City, upon owner, lessee or occupant's failure to comply with notice

Five days after mailing a notice, Creve Coeur claims the right to enter a property without further notice and remove the offending vegetation. Imagine what could happen with a property owner that leaves on vacation for two weeks? They may come home to find their landscaping destroyed with no opportunity for discussion or appeal. Enforcement of the ordinance should be undertaken through due process of law to guarantee property owners the right to fair adjudication of their rights.

In conclusion, it is clear that the protection of natural landscaping activity is an important issue for Chesterfield, however adoption of the Creve Coeur ordinance can not be recommended without including significant modifications.



U.S. Environmental Protection Agency

Green Landscaping with Native Plants

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The John Marshall Law Review Volume 26, Summer 1993, Number 4

A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community.

It is wrong when it tends otherwise.

--- The Land Ethic 1

Disclaimer

Introduction

The Land Ethic

A History of Weedlaws and the Battle Over Them

The Reason for and Response to the Natural Landscape Movement

Some Villages Still Don't Get It

Where to Go from Here

Conclusion

Footnotes

Appendices

I. INTRODUCTION

The natural landscaping "movement" has taken root and its adherents are a varied lot. Attend any one of the many seminars held on natural landscaping, prairie restoration, xeriscaping, or wildflower propagation, and you will be with suburban yuppies, weekend ecologists, and seniors whose retirement hobby is gardening. At the seminars you will also encounter hard-core professional scientists and botanists interested in preserving the gene pools of endangered and threatened plant species and the restoration of ecosystems. There will be some natural landscapers wearing tie-dyed tee-shirts who look as if they just left a Grateful Dead concert. 3

In the Northeast, these people are re-creating the dense layers of the native American deciduous forest; they replace lawns with understory species like dogwood, wild azaleas and native shrubs, ferns and woodland wildflowers. Midwesterners are re-creating tallgrass and shortgrass prairies. Arizonians are landscaping with Sonoran desert native species like giant saguaro, multistemmed ocotilo, and prickly pear cactus. They all share a common goal --- to harmonize gardening and landscaping practices with Nature. $\frac{4}{}$

Many natural landscapers, however, face municipal weed inspectors who challenge their right to "garden in Thoreau's Tradition". These conflicts are the unfortunate result of the collision of opposing forces; those who favor a return to a harmonic relationship with Nature against those who promote the myth of superabundance and the belief that "progress" is the process by which the less ordered natural world is harnessed by people to create a more ordered material environments. This notion of progress based on domination of Nature has its foundation in the "enlightened" thinkers such as John Locke who wrote "land that is left wholly to nature ... is called, as indeed it is, waste". This article argues that this homocentric view of the world is ill-conceived and the use of weed laws to prohibit natural landscapes is a manifestation of the fundamental misunderstanding of humankind's proper place within Nature.

To understand this article, however, one must first understand the lexicon. Here are some important definitions:

Landscaping -

Natural The practice of cultivating plants which are native to the bioregion without resort to artificial methods of planting and care such as chemical fertilizer, mowing, watering other than by through natural processes (rain), with the goal of harmonizing the landscape with the larger biotic community and ecosystem of the immediate and surrounding bioregion. §

Natural Garden -

A smaller version of a natural landscape. In its most simple terms, it is a garden planned and designed to work with, rather than against, Nature."⁹

Exotic -A plant growing other than in its natural bioregionalien. $\frac{10}{10}$

"A plant considered undesirable, unattractive or troublesome, Weed especially one growing where it is not wanted, as in a garden." 11

Any federal, state, county and local, statute, regulation or Weed Law ordinance which limits the type or size of vegetation which grows or is cultivated on land within the jurisdiction. $\frac{12}{12}$

The Land Ethic, espoused by Aldo Leopold, $\frac{13}{13}$ is the central tenet that must be followed if humankind is to survive. The analysis of weed laws within the rubric of the Land Ethic may initially seem to mix relatively minor legislative enactments with a grand concept. But the Land Ethic, as demonstrated below, operates on both grand and minute levels. It succeeds only when all aspects of humankind's interaction with Nature, large and small, inculcate its meaning.

In this regard, the average individual, although concerned, is essentially helpless to remedy the plight of the Amazon, the destruction of the ozone layer, oil spills off Alaska and Scotland or any of the hundreds of other assaults currently being waged against the organism that is Earth -Gaia. 14 Landscaping and gardening represent, for most people, their most direct interaction with Nature. This Article thus turns to the application of the central ecological tenet, the Land Ethic. to local weed laws - not because such laws are the most ecologically pernicious laws, but rather because weed laws operate on the most basic level to affect the landowner who tries expressly or otherwise to manifest the Land Ethic.

This Article seeks to advise and persuade more than the typical Law Review subscriber, lawyer, or judge. There is little in the way of published material available to city legislators to assist them in evaluating the natural landscaping movement and its effects and impact on their village. There are few published cases available to attorneys representing citizens who engage in natural landscaping and are charged with violating a weed ordinance. This Article attempts to fill this void. This Article is primarily a clarion call to policy-makers to accept and embrace the natural landscaping movement and begin to accept the Land Ethic.

II. THE LAND ETHIC TOP

Aldo Leopold is a modern prophet, 15 the "spiritual father of conservation" 16 and an "authentic American Hero." His classic work, The Sand County Almanac, 18 in which he articulated the Land Ethic, is the Bible of the modern environmental-conservation movements. 19 He was not the first to espouse the notion that humankind and Nature are inter-connected. Henry Thoreau²⁰ and John Muir²¹ gave this notion a modern voice. Others have spoken.²² Leopold, however, said it best. He combined sound science, clear prose and cogent logic to articulate an objective

way of thinking about humans and their relationship with the natural world. Where many scientists of his time saw their work as distinct from economics, politics, religion and other disciplines, Leopold did not compartmentalize his thinking or analysis. The *Sand County Almanac* is a collection of essays in which he attempted to "weld" the concepts of ecology, esthetics, and ethics. An integrated understanding of these ideas was what Leopold termed the Land Ethic. 23

A. Ecology

Ecology is the scientific study of the relationships between the various components of the natural community. Leopold considered ecology simply the nature of Nature and the proper human role within it. ²⁴ He wrote "ecology teaches us that no animal - not even man - can be regarded as independent of his environment. Plants, animals, men and soil are a community of interdependent parts, an organism." ²⁵

Leopold entered the Forest Service in 1911. Stationed in the Carson National Forest in New Mexico, he became an advocate of aggressive predator management. In one of his oft-quoted passages, Leopold wrote what he had learned one day after killing a wolf and the significant impact it had on his thinking:

We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes - something known only to her and the mountain. I was young then, and full of trigger-itch; I thought that because there were fewer wolves meant more deer, that no wolves would mean a hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view. 26

He wrote about the consequences of a simple approach to game management, like predator control:

Since then, I have lived to see state after state extirpate its wolves. I have watched the face of many a newly wolfless mountain, and seen the south-facing slopes wrinkle with a maze of new deer trails. I have seen every edible bush and seedling browsed, first to anemic destitute, and then to death. I have seen every edible tree defoliated to the height of a saddlehorn.... In the end the starved bones of the hoped-for deer herd, dead of its own too-much, are bleach with the bones of dead sap, or molder under the high-lined junipers. 27

Leopold's notions of ecology in general, and wildlife management and predator control in particular, although long acknowledged in scientific circles, have now won popular favor. The Endangered Species $Act^{\underline{28}}$ and the Marine Mammal Protection $Act^{\underline{29}}$ are two legislative embodiments of the biocentric view that Nature's elements are essential even though the economic benefits to humankind may be neither obvious nor direct. $\underline{^{30}}$

B. Esthetics

The second element of Land Ethic is natural esthetics - an appreciation of Nature as beautiful for what it does rather than how it looks. 31 Traditionally, in most of Western thought, Nature was viewed in homocentric terms. 32 Leopold challenged that perception and believed that rather than defining beauty m abstract temporal human terms, form followed function and that beauty was more a cerebral than Perceptual experience. 33 In the Sand County Almanac, Leopold

described the wonders of Nature without resort to words like "glorious," "beautiful," or "sublime." $\frac{34}{}$

Before Leopold, the preservation of natural areas was consistent with a homocentric philosophy and almost exclusively a function of the area's visual impact. National Parks were carved out, areas that demonstrated a "take-Your-breath-away" quality. ³⁵ Consistent with the policy of protecting only the visually beautiful, the National Park Service engaged in facade management by eradicating predator species that prayed on popular animals, spraying, pesticides, preventing natural fires and introducing aesthetic all pleasing exotic plant species. ³⁶ This view is changing. Visual beauty is no longer accepted as an appropriate basis for preserving natural areas. Leopold's natural esthetic is now officially recognized. ³⁷

C. Environmental Ethics

Aldo Leopold's third governing concept of the Land Ethic is environmental ethics. Leopold considered ecology a moral mandate since the efforts of science "could only carry us so far." All science can do," he wrote, "is to safeguard the environment in which ethical mutations might take place." The ethical obligation that the members of a natural system have is to "preserve the health of the system by encouraging the greatest possible diversity and structural complexity and minimizing the violence of man-made changes." Environmental Ethics is akin to religion. Justice William 0. Douglas in his book, A Wilderness Bill of Rights, touched the same cord as did Laurence Tribe in his classic critique of the homocentric basis for environmental laws, Ways Not To Think About Plastic Trees. 43

D. Aldo Leopold: A Pioneer Natural Landscaper

Natural landscaping is the manifestation of the Land Ethic. The Land Ethic is summarized in *Sand County Almanac*:

All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in that community, but his ethics prompt him also to co-operate (perhaps in order that there may be a place to compete for).

The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively, the land.

In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such. 44

Aldo Leopold began practicing his Land Ethic through natural landscaping in the late 1930s. In central Wisconsin, he "sought to take a tract of worn out land and bring it back to its original state." On the "Sand Farm," as it was known, Leopold was inspired to compose the *Sand County Almanac*.

In addition to practicing rural natural landscaping at his Sand Farm, Leopold was responsible for the first urban American natural landscape. In 1932, Leopold oversaw the restoration of two square miles of derelict farmland to its natural state at the University of Wisconsin aboretum. The Land Ethic he espoused and the practice of ecological restoration he began in Madison and on his farm are the foundational precursors of the modern natural landscape

movement. This movement, however, must overcome regressive weed laws and uniformed public officials who reject the Land Ethic.

E. The Judicial Acceptance of the Land Ethic

The biocentric Land Ethic, the welding of ecology, esthetics, and ethics to recognize humankind's inter-dependence with Nature, is part of the common law. In Southern Illinois, for example, the Cache River Natural area once considered a swamp whose raison d'être was to be drained by farmers, is now a National Natural Heritage Landmark, the preservation of which an appellate court held takes precedence over the desires of farmers. ⁴⁸ In Minnesota, Leopold's Land Ethic was expressly adopted by the state's supreme court as the guiding principle for construction of state environmental law. ⁴⁹ Justice Douglas relied on Leopold to support his argument for a broad definition of standing in environmental cases. ⁵⁰

The Land Ethic, unfortunately, has not penetrated the minds or affected policy decisions of some city legislators and officials who cling to archaic and environmentally hostile weed laws and prosecute natural landscapers. Such actions contradict, humankind's true relationship with Nature. The history of local weed laws explains their intransigence. Slowly, through the efforts of various citizens and groups, the ignorance and history that girds these laws, is being whittled away. This article now turns to that history.

III. A HISTORY OF WEED LAWS AND THE BATTLES OVER THEM

A. Why We Have Weed Laws

Before humans became "civilized" there were no weed laws because in Nature there are no weeds. Weeds are a product of civilization and cultivation. As agrarian society developed, weeds became the bane of farmers because these exotic plants crowded out crops. In the United States, even before World War I, states regulated certain plants perceived harmful to agriculture. The prohibited plants were placed on noxious weed lists usually developed by the state's department of agriculture. However, agrarian weed control laws, necessary to protect crops, do not pose problems for natural landscapers. Rather, natural landscapers are confronted with the local weed laws--a recent phenomenon that is unrelated to protecting crops or livestock from exotic plant species. 4

Local weed laws exist in the cities and the suburban lands of shopping malls and tract housing. Communities enacted weed laws aiming to protect the public from neglectful landowners whose littered yards could attract rats, mosquitoes or present a fire hazard. As a result of the misunderstanding of some charged with enforcing weed laws and poor draftsmanship, these laws are often wrongfully enforced against natural landscapes. Natural landscapes are not a threat to safety or public health. 55 More distressing, enforcement of local weed laws fosters an unnatural aesthetic conformity, by promoting and protecting monoculture laws, that furthers the malignant notion that humankind and Nature are independent.

Historically, the "virtues" of such artificial landscape were noted by Frank J. Scott, one of America's first landscape architects, in *The Art of Beautifying Suburban Home Grounds*. Scott wrote "[a] smooth closely shaven surface of grass is by far the most essential element of beauty on the grounds of a suburban house." 56

Lawns exist today for several reasons. First, lawns serve as a physical and psychological "moat" between the homeowner and the outside world. Second, it is theorized that humans are genetically predisposed to favor open grass-type landscapes as an artifact of our species' development on the savannas and grasslands of East Africa. Third, to many sprawling green shaved lawns are a status symbol delineating suburban homeowners from their city brethren who generally have neither the land nor resources to make such a public statement of wealth. Finally, in the land of cookie-cutter tract housing a premium is placed on neatness and conformity both of which are promoted by mono-turf yards. Manicured lawns are, unfortunately, the collective face of modern suburbia.

B. What Is Wrong With the Green Lawn and Weed Laws: And Those Who Proved It.

The proliferation of the suburban mono-turf lawns, so lauded by Scott, now covers 30 million acres, an area the size of Virginia, requiring billions of dollars in equipment, chemicals, and upkeep. ⁵⁸ In addition to the cost and direct harm to the environment, ⁵⁹ the proliferation of the suburban mono-turf yard hastens the process of plant extinction by reducing the available habitat for native plants, a global threat. ⁶⁰ Exotic plants tend to out-compete native species because the exotics' predators, animals and diseases often do not exist in the foreign land.

Local weed laws, which continue to protect and proliferate exotic mono-turf, are a constant reflection of the detachment of modern society from Nature. Early local weed laws were enacted in the 1940s outlawing "weeds" usually above some arbitrary height. These fiat laws are typified by the Chicago weed law which flatly outlaws "any weeds in excess of an average height of 10 inches." 61

Perpetually green lawns, like plastic trees, implicitly reduce the entities they portray to terms of serviceability, utility, and adornment. And such caricatures in turn reinforce the belief that the depicted objects exist not for themselves but to service superior needs. As such, mono-turf yards are the most obvious example of humankind's disregard for Nature and its failure to recognize and practice the Land Ethic. Lawns are imposed on the landscape without regard for local geography, climate, or history. True gardening, by contrast, is the natural give and take between the gardener and a piece of land - the essence of the Land Ethic. Putting in an exotic lawn "represents instead a process of conquest and obliteration, an imposition... of an alien idea and even a set of alien species (for the grasses in our lawns are all imported). The lesson of the Land Ethic is that "humans must change their role from conqueror of the land to member and citizen."

With the publication of *Silent Spring*⁶⁶ and the attendant growth of environmental awareness in the 1960s, homeowners began to cultivate natural landscapes. These practices collided directly with the establishment's wooden view of what was proper groundcover for a house and the weed laws used to keep it that way. The history of suburban natural landscaping and its conflict with local weed laws is a story about people and organizations. Leopold firmly believed that if the Land Ethic was to ever succeed it must be practiced by private citizens, not just government.⁶⁷ The natural landscape movement is the story of how the efforts of a dedicated few can convince the many of what is good and right. It is a tribute to the power of people to change society's attitudes, and in turn its laws, for the better.

1. Lorrie Otto - The High Priestess of Natural Landscaping Movement

The modern suburban natural landscape movement's roots are traced to the efforts of one woman, naturalist-teacher Lorrie Otto. When the Ottos moved to their suburban Milwaukee home in the 1950s, the front yard was an acre and a half of lawn with a bed of tulips and 64

spruce trees. It looked like a swiss chalet surrounded by Christmas trees. Mrs. Otto wanted her children to learn first hand about the wonders of Nature so she planted some blue and white aster (*Aster azureus*), yellow goldenrod (*Solidago canadenis*), fragrant bergamot (*Monarda fistulosa*), and some ferns. 68

In the early 1960s, Bayside, Wisconsin, officials viewed her wild fern garden as "weeds" and cut it down. An enraged Lorrie Otto took up the fight and convinced village officials that a natural landscape was a public good and not a health hazard. She went on to become the director of the "Wild Ones - Natural Landscapers, Ltd.," a non-profit organization whose mission is to educate and share information with members and the community at the "plants level" and to promote bio-diversity and environmentally sound practices. ⁶⁹ By 1992, the Wild Ones boasted five chapters in Illinois and Wisconsin and more than 1200 members.

Mrs. Otto, now in her seventies, has received national awards for her environmental efforts. Her naturally landscaped yard is considered one of the best gardens in America. It contains 80 wildflower and grass species reflecting the diversity of a native Wisconsin prairie.

In a poetic turn of fortune, in the village that once sent a mower to level Mrs. Otto's wildflowers, there are now sold-out bus tours of a dozen naturally landscaped homes including her now famous yard.

2. The National Wildlife Federation

The National Wildlife Federation (NWF), formed in 1936 by conservationists concerned with the loss of fishing and game, $\frac{70}{}$ is the United States' largest not-for-profit conservation education organization with 5.4 million members. In 1973, in connection with its efforts to teach and promote the notion of shared stewardship responsibility towards water, soil, air, plants, and wildlife, the NWF developed and promoted its Backyard Wildlife Habitat Program. The program educates its members, supporters and the public about how to provide the basic habitat requirements of wildlife --- food, water, cover, and a place to rear young ---as they plan and plant the landscapes around their homes, schools, and places of work. $\frac{71}{}$

Since the program's inception, the NWF has sought to explain that a great variety of plants, not just the limited selection of trees, shrubs, flowers and turf grasses traditionally used in planting yards, provide superior habitat for wildlife. The NWF enthusiastically promotes alternatives to the turf grasses. Those alternatives include small woodlots and wetlands as well as meadows and prairies and other traditional alternatives such as vegetable gardens, shrub masses and flower beds.

The NWF has joined the natural landscape movement by encouraging cities to change their weed laws and by joining in litigation with both legal and technical support. More recently, the NWF brought the message to schools teaching students the Land Ethic by creating natural habitats on school property. 72

3. City of New Berlin v. Hagar 73

The *Hagar* decision marks a significant watershed in the natural landscaping movement. It is the first, and best, judicial recognition of the practice and the irrational assumptions that underly the use of weed laws to prosecute natural landscapers. The City of New Berlin, Wisconsin elected not to appeal Judge Gramling's decision and, as a result, the opinion is unpublished. Because this opinion is so significant it appears in its entirety in <u>Appendix D</u>.

In April 1976, New Berlin sued Donald Hagar for violating its weed law by practicing natural landscaping and cultivating a several-acre meadow. 74 Hager, a wildlife biologist, fought back. He brought in experts to refute the city's claims that his landscape was a health hazard. 75 The testimony was convincing. Forest Stearns of the University of Wisconsin, demonstrated that the Norway rat does not inhabit or find food in a natural landscape. United States Forest Service fire expert, David Seaberg, testified that Dr. Hagar's prairie did not create a fire hazard. Professor Philip Whitford, a botanist from the University of Wisconsin, testified that a prairie fire, unlike a forest fire, does not create large and persistent embers that can be carried by the wind. David Kopitzke, a Milwaukee County Public Museum botanist, established that wildflowers and natural landscapes do not create a pollen problem. Exotic plants, like Kentucky Bluegrass, and trees, like oaks, create more allergenic pollen than a native prairie.

After three months of deliberation, on April 21, 1976, Judge William Gramling issued his decision. The Court found nothing in the testimony to justify the fire and pollen hazard claims that the city cited to support the weed ordinance. He found that natural landscaping did not negatively affect neighbor property values. The court stuck down the ordinance as violative of the Equal Protection Clause because the factual underpinning for the law was too thin to be rational. The court stuck down the court stuck down the law was too thin to be rational.

Following his victory, Mr. Hagar continued his natural landscaping and New Berlin has not bothered any natural landscapers since. 78

4. Montgomery County, Maryland v. Stewart 79

Walter Stewart, a scientist, and his wife, Nancy Stewart, a Justice Department attorney, borrowed a page from Mr. Hagar's playbook and successfully repelled efforts by neighbors and Montgomery County, Maryland officials to enforce a weed law against their natural landscape. The Stewarts allowed a six-acre natural landscape to grow around their suburban home.

In 1987, the Stewarts received a citation for violating the local weed ordinance. In response, they compiled a detailed scientific and legal case arguing that their natural landscape did not pose a danger to the safety or health of the Montgomery County residents. The county argued that overgrown yards harbored rats and snakes and were harmful to people with respiratory problems. Faced with the Stewarts' evidence, however, the county elected to drop the charges. 80

Because of the Stewart's efforts, Montgomery County changed its weed law to allow meadows as long as there is a 15-foot buffer maintained at 12 inches or less, and species on a noxious weed list, such as poison ivy, are controlled. 81

5. Little Rock, Arkansas v. Allison 82

In the South, Lyndae Allison maintains a natural landscape that the Arkansas Game and Fish Commission considers a natural wildlife area. Her half acre yard is mostly hardwood forest, with trumpet vines and mulberry trees. The City of Little Rock had a different view. Little Rock cited her for violating Article 20-2 of the municipal code which forbids "grass, weeds, or any other plant that is not cultivated" to grow higher than 10 inches or "in rank profussion on the premises." 83

The case went to trial in 1988. The city weed inspector testified that Allison's yard was filled with ivy and honeysuckle, but he found no garbage or litter. A state urban wildlife biologist, Karen Yaich, testified that natural landscapes, like Allison's, do not attract rats or pest snakes.

Ms. Allison testified that she cultivated a natural landscape in order to provide nesting sites for native wildlife and because she preferred the natural appearance.

Little Rock Municipal Judge Marion Humphries dismissed the citation. The Court held:

It appears that what [Ms. Allison] was cultivating was the kind of vegetation that would not attract snakes or rats as suggested by her neighbors, that it would attract songbirds. For that reason, her premises would meet the standards of the Game and Fish Commission of having a certified backyard wildlife area. 84

Without interference, Ms. Allison currently continues her natural landscaping efforts.

6. Ladybird Johnson and the National Wildflower Research Center

Ladybird Johnson led the effort to beautify the National Highway System and was instrumental in the passage of the statute implementing her efforts. In 1982, as a spin-off of her highway beautification efforts, Ladybird Johnson and the late Helen Hayes founded the National Wildflower Research Center, a non-profit environmental organization dedicated to the preservation and reestablishment of native wildflowers, grasses, shrubs, and trees. The Wildflower Center, with 18,000 members, provides information on recommended native plant species and seed and plant sources for each state, plus tips on planting and maintaining native plants through its Information Clearinghouse. The center is an important institutional base for the natural landscaping movement.

7. The Canadian Cases

Across the border, the same battle is being waged between the natural landscapers and some of their neighbors and village officials. Lary Lamb, a university ecologist, has fought neighbors in his Toronto suburb for years to maintain his native North American prairie in his vard. 87

One thousand miles to the east, Cathy Smallwood grows a native woodland in the Newfoundland capital, St. John's. 88 In September 1992, the city served her with a citation for violating the law that required yards to be "kept clean and free from growth of weeds and grass that are detrimental to health or public safety... or by reason of not being cut regularly are excessive when compared with neighboring properties." The matter came before the planning commission and Mrs. Smallwood convinced the commission, 5-4, to allow her to keep her natural landscape. Thanks to her efforts, St. John's is now considering re-writing its weed ordinance to expressly allow natural landscaping.

8. The "Chicago 5"

In America's heartland the battle is being waged to convince the nation's third largest city to permit residents to naturally landscape $\frac{90}{2}$ - something the State of Illinois, Cook County, the Park District and the city itself all actively practice on public lands. $\frac{91}{2}$

The Chicago 5 are a varied lot. Jack Schmidling grows a natural landscape consisting of a 110 varieties of Illinois prairie, woodland and wetland plants and wildflowers. 92 His yard attracts 64 species of birds. Mike Regenfuss cultivates a natural landscape as an important part of the North Branch Prairie Restoration Project, a joint project of the Cook County Forest Preserve District and The Nature Conservancy, a national conservation organization. 93 Since 1949, Larry Clark's family has cultivated a natural landscape consisting of a savanna, prairie, wetland, and an

experimental garden. ⁹⁴ Debra Petro lives on Prairie Avenue and since 1988, she has grown native Illinois prairie and savanna plants as part of the Chicago Park District's Bob-O-Link Prairie Reconstruction Project ⁹⁵ and the Indiana Department of Natural Resources' Hoosier Prairie Restoration Project. Rich Hyerczyk grows native Illinois prairie plants to help preserve native plants in cooperation with the Cook County Forest Preserve District. ⁹⁶

In 1991, the Chicago 5, fed up with the continuous threat of citation for violating the weed ordinance, filed suit in federal court to declare the Chicago Weed Ordinance unconstitutional. Beyond the legal arguments, 98 the Chicago 5 raised compelling common sense arguments for allowing them to maintain natural landscapes in Chicago. The City cultivates a native prairie of wildflowers, legumes and grasses at The David Lee Animal Control Center on the near south side. 99 The Cook County Forest Preserve District is aggressively reintroducing prairie plants throughout Chicago. The Chicago Park District is engaged in similar programs. 101 Like the Park District, the Illinois Department of Transportation is reintroducing native prairies throughout the state. Its reasons are: (1) historical (Illinois is the "Prairie State"); (2) environmental (prairie plants are beneficial to wildlife); and (3) economical (by introducing prairie plants, IDOT is able to save money, and reduce gas consumption, wear and tear on IDOT machinery, and man-hours necessary to mow roadsides). 102

The fact that homeowners are prosecuted while the governments that prosecute them plant natural landscapes demonstrates the tug-of-war between those who want to live the Land Ethic and those who want to continue the practices that ignore humankind's proper place within Nature. Some in government, like the Chicago Park District, recognize the Land Ethic. Others, like those who prosecute natural landscapers, do not. The view of the former is taking hold for a host of compelling reasons set forth below.

IV. THE REASONS FOR AND RESPONSE TO THE NATURAL LANDSCAPE MOVEMENT

A. The Movement Officially Takes Root

Cook County and Chicago are not the only governments embracing natural landscaping - interest in the practice is global. $\frac{103}{100}$ In the London borough of Richmond upon Thames, for example, there is a sprawling "hay meadow" resplendent with such wildflowers as buttercups and red clover. $\frac{104}{1000}$

In 1990, Congress mandated that 25% of all funds spent on highway landscaping projects be used to plant native wildflowers along the easements and rights-of-way of the Nation's highways. The Clinton Department of Interior is working with the Nature Conservancy and state and local governments to restore ancient American landscapes including the Park Savanna in the Midwest, the coastal sage scrub ecosystem in Southern California and the Hill Country region landscape in Texas. 106

Remarkably, even the conservative, anti-environment Bush Administration strongly advocated natural landscaping - which it called "the New American Garden Style." According to the United States Department of Agriculture Director of the National Arboretum:

In the past, wildlife was thought of as the enemy of gardening and agriculture. Everyone has stories of destruction and ruin of valued plants and crops. These concerns no longer have to be reasons why wildlife cannot be welcomed back into

our living space. A new gardening style, first designed by Oehme and Van Sweden, landscape architects of Washington D.C., was created on the grounds of the U.S National Arboretum as the *New American Garden Style*. The design, the plants, the preparation of the site, the maintenance schedule and the year-round display all work together to reclaim a disturbed site and restore it as to habitat where wildlife and humans can coexist. 108

According to the Bush Administration, a homeowner with a New American Garden should "overseed the entire area with native wildflowers." 109

Canada has officially embraced natural landscaping. The Ottawa City Council, for example, has approved plans to let nature take its course by reclaiming the city's 56 parks with natural landscaping. The idea is to naturalize the public parks by planting trees, creating woodlots and plowing up existing grass to replant selected wildflowers and native grasses. 110

The actions of national, state, and local governments demonstrate that natural landscaping and the goal of harmonizing our yard with Nature and attracting backyard wildlife has officially taken hold. Natural landscaping is even termed "fashionable." The actions of governments and the acceptance of natural landscaping is not without cause. There are good reasons for this trend.

B. Why the Movement Is Taking Root

Prairie ecologist Neil Diboll, a natural landscaping advocate and expert for nearly two decades, cites three primary reasons for the rapidly growing acceptance of natural landscaping: (1) ecologic; (2) economic; and (3) spiritual. 112

Ecologically there is no doubt that natural landscapes are preferable particularly when compared to traditional suburban exotic lawns. Since natural landscapes do not require pesticides, herbicides or fertilizers, the harmful effects of these chemicals are eliminated. In light of water shortages and problems with non-point source Pollution, natural landscaping has profoundly positive ecologic effects. Xeriscaping, the practice of planting native low-water-consuming plants, is the law in many cities and one of the most compelling ecological bases for natural landscaping. Il4

The positive economic consequences of natural landscaping are twofold. First, there are the direct costs. Natural landscapes are less costly to maintain than a traditional exotic lawn or exotic landscape. Once established, natural landscapes are not mowed, fertilized, treated with pesticides or herbicides, and they do not need watering. For the homeowner or office building manager, direct costs are substantially reduced. 116

State departments of transportation across the nation are some of the strongest advocates of natural landscaping. They recognize the benefits of natural landscaping and plant native plants on roadsides and rights of way throughout their jurisdictions. ¹¹⁷ The Minnesota DOT is perhaps the most notable in its efforts. The MDOT Wildflower Program is involved in preserving and planting prairie wildflowers at many rest areas and along roadsides throughout the state. In addition to beautification of the state, a tourist attraction, the MDOT cites many discernable benefits from its program. ¹¹⁸

Natural landscaping also reduces the costs of pollution cleanup. For example, water pollution in inland lakes and rivers could be reduced when those living within the watershed naturally

landscape their yard. The result would be reduced run-off and a reduction in non-point source pollution attributed to fertilizers and herbicides used for maintenance of mono-culture lawns. 119

The second economic argument for natural landscaping is the doctrine of diminishing marginal value - the less of an asset that remains the more valuable it becomes. As suburban sprawl continues to consume open space, the elements of Nature that remain and can be preserved increase in value. Accordingly, many developers are citing to the natural landscapes retained in their developments as a positive asset. Prices of homes in such sub-divisions often cost more than similar homes in areas without natural landscaping. 120

The final reason for the movement towards natural landscaping - the manifestation of the Land Ethic through our yards - is spiritual. Diboll's argument is that insofar as we view ourselves as external and, therefore, not a part of Nature, we do not share the universal energy and soul of the "Great Spirit" whether the spirit be God, in the Judeo-Christian view, or some other metaphysical being. This disconnection from the life of the planet and universe deprives humankind of the security of belonging to the big picture. The resultant "insecurity" or lack of connection drives humankind to seek other forms of security, such as financial security, in an attempt to insulate ourselves from the chaos of everyday life.

To achieve financial security, humankind despoils the Earth by converting natural resources into capital - an unnatural concept. In the process, humans have become unbalanced, and are willing to damage the very systems upon which they rely for sustenance. This devastation transcends economic models, from capitalism to communism to tribalism. It is not so much a problem of systems as it is a problem of spirit and culture.

Ultimately, economics drives culture and religion. Humankind can no longer pursue a pattern of destroying the Earth; this is now uneconomical. No organism can survive in a medium of its own waste. Therefore, we must develop spiritual systems that reflect this new reality and reward better nature in non-economic terms, i.e., spiritual growth rather than monetary growth. Spiritual development will be a growth market of the future - that spirituality is the Land Ethic and is manifested by homeowners through natural landscaping. 121

C. What Cities Have Done in Response to the Movement

In response to the efforts of the Ottos, Stewarts, Allisons, and Hagars of the world, and consistent with the reasons set forth by Neil Diboll, not only are governments at all levels engaging in natural landscaping, but many municipalities are changing weed laws to allow their citizens to naturally landscape their yards free from the fear of prosecution. The level of freedom, however, varies.

1. The Madison "Permission" Law

Madison, Wisconsin was the first major city to recognize the legitimacy of natural landscapes by enacting an ordinance validating them. As a result of its groundbreaking legislative efforts and because it is home to the University of Wisconsin Arboretum, Madison is considered the cradle of the prairie restoration movement. Although many cities have enacted ordinances modeled after the Madison Ordinance, upon close examination, the ordinance proves both good and bad.

The Madison Ordinance requires the homeowner to file an application for a natural landscape and then obtain the approval of a majority of his neighbors. 122 By expressly allowing natural landscapes, the ordinance represents a significant first step in the process of reversing the blight of truly environmentally harmful turf. The neighbor veto and the application and approval

process, however, are unnecessary limitations on the right to naturally landscape one's yard. These requirements also lead to a process of ad hoc "permission" to plant native plants and grasses. Finally, the premise of the Madison Ordinance is counterintuitive - why should natural landscapes be singled out as requiring permission when truly harmful landscapes remain unregulated?

2. Modified Local Weed Laws

A better, and more recent type of local weed law remedies the shortcomings of the Madison Ordinance by allowing natural landscaping without either neighbor approval or city permission. These laws retain the traditional prohibition of growing "weeds" or "rank vegetation" but include a modifying clause that places natural landscapers out of harm's way.

There are two versions of modified weed laws: (1) the setback ordinance and (2) the natural landscape exception ordinance. Setback ordinances generally require an area measured from either the front or the perimeter of the lot, in which the vegetation may not exceed a certain height, like ten or twelve inches, exclusive of trees and bushes. The vegetation behind the setback and within the yard, is unregulated. Setback distances depend on the type of community and size of the typical lot. Communities with homes on large lots could have as much as a twenty-foot setback, while in towns with smaller lots, a two- or three-foot setback would be more suitable.

Setback laws have several advantages and represent a workable compromise between the sometimes diverse interests of the village, natural landscapers and neighbors. Primarily, setback ordinances allow for the unregulated growing of vegetation on a majority of the lot. Like a frame around an abstract painting, the setback around the perimeter creates a tended look that satisfies neighbor and village concerns of conformity and aesthetics. The yard takes on its intended look. A setback also solves the practical problems caused by large plants and grasses lopping over into neighbor yards or across sidewalks. The setback ordinances are also easy to understand and enforce. Both the village and natural landscaper benefit from a clear and simple law. Neighbor complaints are generally satisfied by such compromise and living in a community makes compromise essential.

The liability inherent in these setback laws is that a portion of the yard is rendered off4imits for certain types of tall native plants. In some cases that excluded portion may prove to be the best land available to the homeowner for cultivating certain plants. This liability is, however, a small price to pay for an otherwise workable and fair ordinance.

The second type of modified weed laws are those that limit the blanket weed ordinances with broadly worded exceptions for environmentally beneficial landscapes. 124 These exceptions include:

- the use of native plant species for aesthetic and/or wildlife NATIVE **PLANTINGS** reasons; - the use of native and/or introduced plant species to attract and WILDLIFE PLANTINGS aid wildlife: - to offset and control any soil loss problems both occurring or **EROSION** CONTROL predicted; SOIL - the enrichment and eventual stabilization of soil fertility **FERTILITY** through the use of various plant species; BUILDING

GOVERNMENTAL PROGRAMS	***	any federal, state or local pro-grams which require the unimpaired growth of plants during a majority or all of the growing season;	
EDUCATIONAL PROGRAMS	-	any areas designated for educational studies;	
CULTIVATION	-	any plant species or group of plant species native or introduced and grown for consumption, pleasure or business reasons;	
BIOLOGICAL CONTROL	-	the planting of a particular plant species or group of species which will effectively out compete and replace a noxious or troublesome weed species without additional soil disturbance of the site;	
PARKS AND OPEN SPACE	-	any and all public parks and open space lands whether under the jurisdiction of federal, state, or local agencies including private conservation/preservation organizations; and	
WOODED AREAS	-	all areas that are predominately wooded.	

Such modified weed laws expressly protect natural landscapes. They are easy to understand and adequately balance the interests of natural landscapers and neighbors. Additionally, exceptions can be added or deleted from this list to tailor the weed ordinance to the needs of the village and the bioregion in which the village is located.

3. Promotional Natural Landscape Laws

The final type of new local weed law not only allows for, but promotes the Land Ethic by encouraging natural landscaping. Villages which have chosen this route generally have no prohibitory weed laws. They have few laws coupled with proactive measures and policies which encourage the use of native plants and natural landscapes. 125

Long Grove, Illinois, is a good example of a community that embodies this policy. ¹²⁶ Long Grove has no law regulating vegetation height. The village requires developers to include scenic easements, at least one hundred feet deep and planted with native plants, wildflowers and grasses between the homes and major streets, in their subdivisions. Large portions of the town are designated natural areas as determined by a scientific ecological survey. Long Grove employs a naturalist to advise developers and homeowners on how to cultivate and maintain natural landscapes. Long Grove sells native plants and seed mixes to residents and has a committee that reviews prairie restoration projects within the village. The median home price in this naturally landscaped village is \$383,000. ¹²⁷

Fort Collins, Colorado has gone further than Long Grove. The city employs a full-time wildlife biologist and has a ten acre nature preserve in the heart of downtown on land that used to be a formal park. There is a city program to identify and certify homeowner's backyard wildlife habitats. To receive this certification, homeowners must let Nature reclaim their non-native lawns. Hundreds of citizens participate in the program. 128

Such pro-active natural landscape laws are, of course, the ultimate goal that we must attain. They truly reflect the teachings of the Land Ethic.

V. SOME VILLAGES STILL DON'T GET IT - WHAT TO DO IF YOUR VILLAGE IS ENFORCING ITS WEED LAW AGAINST YOUR NATURAL LANDSCAPE

The types of old weed laws used by municipalities to prosecute natural landscapers generally suffer from a variety of legal flaws. These flaws can be exploited by natural landscapers who are targeted for prosecution in order to win his or her case, or hopefully, convince his or her village that the weed law should not be applied to natural landscapes. The flaws are constitutional, practical and evidentiary.

A. Natural Gardening as a Fundamental Right.

1. Landscaping as Speech and Art

Natural gardening can be constitutionally protected speech and, therefore, any weed law must be closely related to a compelling state interest. While not all natural landscapes are obvious to even a casual viewer, many are. Indeed, this is often the real "problem." Symbolic speech is as protected as oral speech. One of the best ways a person can announce his or her concern for what humankind has done, and is doing, to the environment is to restore a portion of the environment to its natural state. Restoring natural vegetation can, therefore, be a form of speech and, as such, is entitled to the same protection that speech receives under the First Amendment. 129

The attempt made by natural landscapers to politically express themselves through the cultivation of wild plants is one that parallels historical and traditional precedents. The political use of flowers as symbols is as important today as it has been in the past. The red rose is the symbol of the Socialist Party in France and the British Arbor Party. In the War of the Roses, opposing sides took roses of different colors as their symbols. 131

Natural landscaping can also be artistic expression protected by the First Amendment. State law recognizes the beauty, artistic expression and virtue of landscape gardening. Landscape architecture is defined as "the art and science of arranging land together with the spaces and objects upon it, for the purpose of creating a safe, efficient, healthful, and aesthetically pleasing physical environment for human use and enjoyment. A weed law, as applied to natural landscapers, denies the landscapers' ability to express themselves, through an activity statutorily recognized as art.

Neighbors and government officials need not concur that the natural landscape is "art" before First Amendment protection attaches. In interpreting art as speech protected by the First Amendment, the court in *Piarowski V. Illinois Community College* ¹³⁵ stated, "[t]he freedom of speech and of the press protected by the First Amendment has been interpreted to embrace purely artistic as well as political expression (and entertainment that falls short of anyone's idea or art...)..."¹³⁶

One of the most spectacular examples of natural landscaping as art lies in the heart of Chicago's Grant Park. The Wild Flower Works II is the creation of Chicago artist Chapman Kelly. 137 Kelly sees his garden of wildflowers, legumes and other native plants not merely as dirt and flowers, but rather a giant canvas on which he does his "most spectacular work." The ecological painting is a socio-political work that symbolizes the proper role of humankind within Nature.

In 1988, when the Park District sought to have the Wild Flower Works plowed under, Kelly went to court and obtained a temporary restraining order arguing his First Amendment rights. The lawsuit was later settled by allowing the Wild Flower Works to remain in Grant Park and the Park District to receive regular reports on its maintenance.

"Gardening is the art that uses flowers and plants as paint and the soil and air as the canvas - working with nature provides the technique." 139 More remarkable examples of gardening as art are the efforts of the French Impressionist, Claude Monet. Following the death of his wife, Monet moved to Giverny, France in 1883. There he planted the gardens that were the subject of his most famous paintings. Focusing on color relationships and the effects of light, Monet carefully arranged pure colors in the abstract form of flowering plants to "create richly patterned textures and mood by contrasting or homonizing color relationships." 140 In the later, and most productive part of his career, Monet used his flower and water gardens at Giverny as a living studio. "With the living, growing and changing plants, always subject to light and weather, Monet created an organized concentrated color environment where he could live, breathe, observe and walk, forever having his painter's eye challenged by the effects of light." 141 Many of the plants Monet employed, and much of the layout of the gardens, are the same or similar to many of today's natural landscapes.

Enforcement of a weed law denies the artist the tools of her art, Nature. A city's weed law enforcement is as devastating to a natural landscaper as declaring music a nuisance would be to a musician. Absent a showing of some compelling municipal interest, a city does not have the power to restrain a natural landscaper's freedom of expression. The unjustified restraint of freedom of expression consitutes a violation of the First Amendment.

2. Landscaping as Religion

Natural landscaping, for some, can be a constitutionally protected form of religious practice. Courts essentially recognize religious practices subjectively, the only test being whether the individual asserts his belief in good faith and that belief could arguably be religious. 142 Therefore, not only would the established Native American religions 143 and Eastern religions 144 which preach the oneness of humankind and Nature be entitled to First Amendment protection for natural landscaping, but those who hold "nontraditional" religious beliefs would also be entitled to such protection. Certainly, the adherents of Deep Ecology 145 would be entitled to First Amendment protection for natural landscaping practices.

Beyond First Amendment protection to these less-common religions, the fundamental teachings of the Bible and Judeo-Christian theology encourage a stewardship approach to humankind's interaction with Nature. 146 Vice President Gore narrows the focus and strongly supports the premise that traditional Judeo-Christian religions counsel for a harmonic relationship between humankind and Nature 147

Enforcement of weed laws can be an impediment to the free exercise of these religions. Whatever protection the Constitution affords that free exercise would apply to the practice of natural landscaping for those individuals engaged in it as a result of or in furtherance of their religion. 148

B. Weed Laws as Unconstitutionally Vague

Even if not a constitutionally protected fundamental right, natural landscaping can escape attack from out-dated weed laws because such laws generally do not define the term "weed" and are, therefore, unconstitutionally vague. The Chicago Ordinance, like many, merely outlaws

"weeds" or an accumulation of weeds. 149 As such, these laws provide a subjective and relative standard, which violates the Due Process Clause.

A law is void for vagueness where it does not clearly define what it prohibits. ¹⁵⁰ A law is void on its face if it is "perfectly vague"; to sustain the challenge the statute must be one which provides no "ascertainable standard for inclusion or exclusion." ¹⁵¹ Weed laws that fail to define "weed" suffer from such a constitutional infirmity. ¹⁵²

The term "weed," where not statutorily defined, must be ascribed its dictionary definition. But "what is a weed?" is a vague and subjective determination. Its meaning varies depending on who is applying the definition and where the subject plant is located in relation to other "desired" plants. Thus a "weed" to a farmer may be a rose or iris growing in his corn or wheat field. But a rose or iris is not a "weed" to the conventional gardener, who would cite corn or wheat growing in his flower bed as "weeds." As Justice Douglas wrote: "Words which are vague and fluid may be as much a trap for the innocent as the ancient laws of Caligula." 154 Weed laws can clearly be such a trap.

In Newark V. Garfield Development Corp., 155 one court ad-dressed the issue directly. In that case, the court struck down an ordinance that stated "all areas shall be kept free from weeds or plant growth which are noxious or detrimental to public health and welfare or a public nuisance defined in article 2." Article 2 defined public nuisance as "any premises which are unsanitary, or littered with rubbish or garbage, or which has an uncontrolled growth of weeds." The court held:

That which appears to be contained without exception in all weed control legislation but which is lacking in the ordinance in question is the *definition of the* particular vegetation which is sought to be controlled or a mechanism by which the particular vegetation is designated to be noxious and therefore subject to government control. ¹⁵⁶

The court summarized the reason for the ruling as follows:

[I]t seems clear to this court to be utterly repugnant to our system of law to punish a person for an act, the criminality of which depends not on any standard erected by the law which could be known to the defendant in advance, but one erected by a judge or jury after the trial has been completed. 157

Even if weed ordinances are not void on their face, they can often be vague-as-applied to those who engage in natural landscaping. Across the nation, all levels of governments are actively pursuing natural landscaping. The most remarkable, and perhaps ironic, example of a government natural landscaping is Chicago's prairie on the southside at the David R. Lee Animal Control Center. The city planted hundreds of pounds of wildflower, native grass and legumes seeds at the site. Marie Wojciechowski, who is being prosecuted by Chicago for violating its weed ordinance, gathered seeds from the city's prairie garden and grew plants from those seeds on her property. She even received a letter from a city landscape architect asking her to call if she needed any further assistance or information about the prairie. Ms. Wojciechowski now defends herself in a criminal case brought by the city for growing the offspring of the city's own plants.

Without an exact definition of what type of vegetation is prohibited, weed laws violate due process because they allow law enforcement officials and judges to rely on their own notions of what is right and what is wrong. 161 The primary thrust of the void-for-vagueness doctrine is:

The requirement that a legislature must establish guidelines to govern law enforcement.... Where a legislature fails to provide such minimal guidelines, a criminal statute may permit a standardless sweep that allows policemen, prosecutors and juries to pursue their personal predilections. 162

Weed laws create such a result. Absent guidelines within the text of the weed law itself as to what plant species are prohibited, an enforcement officer is free to decide, strictly on his own, whether the plant complained of in a given situation is illegal. Since weed inspectors have no guidelines to determine if a homeowner violates the weed law, this is unfair and unconstitutional.

C. Weed Laws as Irrational in Violation of the Equal Protection Clause and Unreasonable in Violation of the Common Law

If natural gardening is not a fundamental right and the weed law is not vague, the party charged with violating a weed law may nevertheless challenge the rationale for a weed law. An ordinance must not only be rational to survive constitutional scrutiny under the Equal Protection Clause, ¹⁶³ but under the common law, municipal ordinances must pass a more exacting standard of reasonable-ness. ¹⁶⁴ Natural gardeners have successfully proven that local weed laws are irrational and unreasonable as applied to natural landscapes. ¹⁶⁵

Natural landscapes are attractive and they do not decrease property values. More directly, natural landscapes do not create a health hazard, as cases have proven. Some uninformed government officials and citizens believe that natural landscapes cause problems with pollen, fire hazards, rats, and mosquitoes. These mistaken beliefs are all soundly refuted by testimony and studies. In fact, natural landscapes reduce many of the very hazards that weed laws are intended to prevent.

1. Fire

One of the most common arguments asserted in favor of local weed ordinances is fire prevention. As to natural landscapes this argument is predicated on the unproven contention that tall grass and forb stems, commonly planted as part of a prairie or meadow, constitute a fire hazard. This is not, in fact, true. In *New Berlin v. Donald C Hagar*, ¹⁶⁶ United States Forest Service expert David Seaberg testified that a grass fire can sustain high heat for only twenty seconds. In order to ignite wood and sustain a fire potentially damaging to a home, a grass fire must burn within four feet of the home for seven and a half minutes. Judge Gramling agreed, finding no rational basis for the claim that natural landscapes create a fire hazard. ¹⁶⁷

According to John Diekelmann, a noted landscape architect and plant ecologist, most prairie or meadow plantings contain a large portion of green leafy material at ground level during most seasons and do not sustain fire. $\frac{168}{2}$ In short, restoring an area as prairie does not create a fire hazard. Moreover, if fire prevention were the purpose, a rational ordinance would prohibit the accumulation of biomass in a given area based on some index of flammability, not merely undefined weeds.

2. Vermin

A second common argument raised in defense of local weed laws is that naturally vegetated areas sustain rats and other vermin. Rats and other animals commonly regarded as vermin require a steady food supply. Natural vegetation in yards does not provide the type and quantity of food required to sustain a population of rats and other creatures regarded as vermin. 169

In short, the man-made food supply of the sort often provided by structures, especially barns or garbage dumps, is what sustains rats and other vermin. Thus, an ordinance aimed at limiting rats and other vermin should not be targeted at "weeds" but rather should prohibit the food massgrown and openly stored on property.

3. Mosquitoes

A third defense of local weed ordinances is the assumption that weed-covered areas provide a breeding place for mosquitoes. In fact, however, mosquitoes require standing water to breed. Even the fastest growing mosquitoes found in the upper Midwest need standing water for ten days to complete their life cycle. Since prairie and meadow areas tend to absorb water quickly, they are less likely than frequently watered lawns to contribute to the presence of mosquitoes. If mosquitoes are the problem, it is standing water and not weeds that should be prohibited. 170

4. Pollen

A fourth justification for local weed laws is the belief that weeds produce pollen which contributes to the suffering of people with allergies. As with the other defenses of out-dated local weed laws, this is also mistaken. Herbaceous plants responsible for pollen allergens fall into two general types: (1) plants such as ragweeds which characterize environments subject to repeated disturbances such as erosion or cultivation, and (2) areas characterized by a permanent cover of non-indigenous turf and pasture grasses such as bluegrass, perennial rye, and timothy. 171

Traditional lawn and landscape maintenance procedures in urban and suburban areas of the United States, which are often the antithesis of natural landscaping and Land Ethic, are more likely to be a significant source of community health problems than landscapes most often cited for "weed" law violations 172

This issue was at the center of the litigation that led to the Fairfax County, Virginia "Weed Law" finding that the law was unconstitutional in 1976 in *Board of Supervisors of Fairfax County, Virginia v. Wills and Van Metre, Inc.* 173 The decision was based in large measure on the testimony of Dr. Stanwyn Shetler, now the Assistant Director of the National Museum of Natural History at the Smithsonian Institute. Dr. Shetler testified that wind-borne pollen may travel hundreds of miles so that a local weed ordinance has virtually no effect in reducing allergy causing pollens. In his decision, Judge Richard J. Jamborsky found:

Shetler's testimony [regarding pollen allergies and some other assumptions about weeds] challenges and refutes some of the old notions about weeds and nuisances enunciated 73 years ago in City of St. Louis V. Galt. In the absence of a showing that its tracts are a health hazard, the defendant should be permitted to maintain the meadows. 174

Similarly, in *New Berlin V. Hagar*, ¹⁷⁵ Judge Gramling found that a city's weed ordinance applied to natural landscapes lacks a rational basis for the elimination of allergenic, wind-borne pollen that affects people with hayfever and other allergies. ¹⁷⁶

5. Enforcement of Weed ordinances Against Natural Landscapes Increases Wind-Borne Allergenic Pollen and Other Health Hazards

The primary cause of hayfever is ragweed. 177 Ragweeds are a pioneer species in the normal course of plant succession that thrive in disturbed soil found in recently developed or degraded

areas. 178 In the normal course of plant succession, weedy pioneer plants would, if the soil remains undisturbed by cutting or other activity, be succeeded by grasses and herbaceous plants. All plants produce pollen, but perennial native plants and native grasses, the primary components of natural landscapes, are generally not producers of wind-borne, allergenic pollen. Allowing these plants to grow, operates to crowd out the weedy pioneer species that create the health hazard. Based on these facts, Judge Gramling concluded that the weed ordinance, as applied to natural landscapes, was counterproductive. 179

Even more ominous than the health problems associated with some wind-borne pollens, is the likelihood that the chemicals used to establish and maintain mono-turf yards pose a serious health risk to the environment and to people and their pets, not to mention whatever wildlife remains in the area. Homeowners apply more than 67,000,000 pounds of active lawn chemicals each year, more pounds per acre than are applied by farmers. 180

The damage to human health attendant to such landscaping practices is well-documented. For example in Fairfax County, Virginia officials blame the high levels of phosphorus in streams on lawn fertilizer run-off. The United States Environmental Protection Agency found potentially harmful levels of nitrate in more than half the drinking water wells tested nationwide. High nitrate levels can cause "blue baby" syndrome, a potentially fatal oxygendepriving disorder in infants. Finally, researchers at the National Cancer Institute have linked frequent chemical-lawn treatments to an increased incidence of deadly cancer in dogs and suggest a link between the weed killer, 2, 4-D, and cancer in humans. 183

By prosecuting natural landscapers, and either implicitly or expressly promoting exotic monoturf yards, villages increasingly harm the public health. The connection between the prosecution of natural landscapers under weed laws and enhancing public health, safety and welfare is not well-founded. Prosecutor claims rest on convenient assumptions that have not withstood judicial or scientific scrutiny. Even more frightening is the likelihood that the correlation is inverse-that these weed laws are, if not mandating, certainly encouraging turf grass lawns established and maintained with chemicals that seriously endanger the public health, safety, and welfare.

6. Aesthetics

The final recurrent criticism of natural landscapes is that such yards simply "don't look nice." Neighbors wish to live next door to neighbors who have yards of "beauty." To some, natural landscapes look unattended and "messy." Such shallow arguments demonstrate the underlying motivation that some feel to control the actions of those who dare to be different.

"What beauty is I know not, but it dependeth upon many things." Although some believe that beauty is visual, the Land Ethic teaches that beauty is determined by how an activity, plant or species fits within the natural world. Humankind must conform its yards with nature, not some artificial model. Natural landscapes conform to nature and are things of beauty.

On a perceptual level, a yard ablaze with colorful wildflowers and majestic flowing native grasses impresses the viewer and attracts positive responses from passersby. For example, Chicago's Grant Park, contains the two-acre "The Wildflower Works." The Chicago Park District is planting native coneflowers and day lilies along the 4½ mile-long median of Lake Shore Drive, Chicago's most famous street. The program is considered the first of its kind in the nation and if the planting proves successful, the Chicago Park District plans to naturally landscape other major streets in the city. The State of Illinois ripped out the tulip end rose garden on the grounds of the State Capitol end replaced it with native Illinois prairie plants. Illinois believes the aesthetic appeal of native landscapes is more pleasing then traditional

exotic landscapes end with respect to the claim that natural landscapes are ugly and decrease neighboring property values, the opposite appears to be true. 188

These aesthetic qualities of natural landscapes have been embraced by corporate America. Sears, Roebuck & Company is planting a landscape of prairie grasses and forbes around its new headquarters in Hoffman Estates, Illinois. 189 Not only does Sears view the use of a natural landscape as en ecologic end economic benefit, but Sears plans to use the natural landscaping as a marketing tool to attract other corporate office users to the 786 acre site. Sears' plans have been called a "landmark" in the natural landscaping movement. 190 Other corporations, large and small, utilize natural landscaping at their corporate headquarters for ecologic, economic and aesthetic reasons. These include: McDonald's in Oak Brook, Illinois; Westbend Mutual Insurance in Westbend, Wisconsin; Schneider Tracking in Greenbay, Wisconsin; and Promega Corporation, a biotech company in Madison, Wisconsin. 191

Ultimately, the aesthetic argument against natural landscaping is illogical. One man's weed is another man's rose. 192 To some, pink plastic flamingoes, polka-dotted bloomered cardbord ladies, twirling plastic sunflowers, astro-turf-covered front stoops, end perfectly sculpted evergreens look simply ridiculous; but to others, such landscaping is beautiful. People have a right to astro-turf-covered stoops, closely cropped evergreens, end spinning plastic sunflowers in their yards. That is the American way. But individuals also have the right to a natural stone walkway, free-flowing native shrubs and forbs, end real sunflowers reaching to the sky in a blaze of gold.

VI. WHERE TO GO FROM HERE --- SUGGESTIONS FOR LOCAL WEED LAWS THAT EMBODY THE LAND ETHIC

In the end, it is the public perception that must change, particularly those in policy making positions in villages around the nation. History Points that way. In 16th Century England, wealthy and owners had lawns that were natural meadows starred with a thousand flowers. In those days, grasses were hated weeds, and garden boys would creep along the flower lawns picking out the grass. In the 19th and 20th Centuries, the perception of the ideal yard has been confounded. Grass became the vegetation of choice. Local weed laws protect and promote this ideal. We must return to the past.

In response to the natural landscaping movement, communities are moving from repressive weed laws toward more progressive weed laws. The progress, however, is too slow; and far too often efforts to change regressive "weed laws" are met with opposition based on misunderstandings. Judges and government officials should abandon these ill-founded notions.

The natural landscaping movement, having taken root, will continue to grow as we enter the 21st Century. Unfortunately, weed laws in many communities persist and create a significant impediment to the growth of the natural landscape movement. These repressive laws must be changed.

In her recent book, Noah's Garden, Sara Stein challenges us to replace the sterile, contrived, inherited exotic landscapes that have unfortunately dominated our lives. She writes of a promising future where local and state laws regarding land use reflect the Land Ethic:

Some time in the future, the value of a property will be perceived in part according

to its value to wildlife. A property hedged with fruiting shrubs will be worth more than one bordered by forsythia. One with dry stone walls that provide passageway for chipmunks will be valued higher that one whose walls are cemented stone. Buyers will place a premium on lots that provide summer flowers and fall crops of seed. Perhaps there will be formal incentives: tax abatements geared to the number of native species; deductions allowed for lots that require neither sprays nor sprinklers. A nursery colony of bats might be considered a capital improvement. There could be bonuses for birdhouses. Oh, brave new world! 193

This is the goal, but in populated urban areas, it may be unrealistic to believe that unregulated, pro-active natural landscaping laws, will be accepted in the near future. The "journey of a thousand miles begins with the first step," and it is with that axiom in mind that the following guidelines are offered to be used by communities in crafting new weed ordinances that begin the road toward a more benign relationship between our yards and Nature:

- 1. The ordinance should protect the fundamental right of residents to choose their own landscaping;
- 2. The ordinance should apply equally to all residents as well as the City. County and State. if possible:
- 3. Any restrictions in the ordinance should have a rational basis; *i.e.*, a legitimate interest in public health, safety or welfare;
- 4. The ordinance must not legislate conformity or aesthetics nor allow residents of the City to exercise control over their neighbors' landscapes;
- 5. The ordinance should not require the filing of an application, statement of intent or management plan; and there should be no review or approval process or fees assessed against residents who intend to engage in legitimate natural landscaping;
- 6. In order to avoid harassment of natural landscapers, the City's "weed commissioners" who will enforce the Natural Landscaping Ordinance, and thereby differentiate between those people who are growing permitted natural landscapes versus those with unpermitted growth, should be able to distinguish between the two;
- 7. Enforcement of the ordinance should be undertaken through due process of law which guarantees individuals the right to fair adjudication of their rights; and,
- 8. The ordinance should address the problems of environmental degradation brought about by proliferation of high maintenance monocultural landscapes, and the indiscriminate use of toxic chemicals in landscape management. It should encourage the preservation and restoration of diverse, biologically stable natural plant communities, and environmentally sound practices. This would reduce not only contaminants to the environment such as pesticides, fertilizers, pollutants and noise, but would help reduce the accumulation of yard waste

A model for good, fair and workable modified weed ordinances embodying the foregoing guidelines is attached as an appendix. This model is simple, easily understood, and allows natural landscaping consistent with the Land Ethic. But, the law is not proactive in its treatment of natural landscaping. Two versions of such pro-active natural landscaping laws - proposed by Lorrie Otto and College Station, Texas are attached in the appendix. Lorrie Otto's proposed Natural Landscaping Act is the best available model law. It embodies the Land Ethic more directly and is similar to the approaches adopted in Long Grove, Illinois and Ft. Collins, Colorado. The proposed College Station, Texas Natural Landscape Ordinance is similar in its

pro-active tone and effect.

Any of these three models offer a significant improvement on traditional anti-Nature weed laws many villages still have on the books. The specific wording of any new weed law, of course, will vary from town to town and region to region based on particular climate, geography, and population density, but whatever the final wording, the weed laws of old must be changed to reflect the Land Ethic and thereby enhance, rather than inhibit humankind's chances of survival.

VII. CONCLUSION Top

Laws, however, are only a first step. They offer a means to an end but are never an end themselves. We cannot rest with the enactment of a law and believe that it alone will accomplish the desired goal of a harmonic relationship with Nature. As Dr. Wilson observed:

The wise procedure is for law to delay, science to evaluate and familiarity to preserve. There is an implicit principle of human behavior important to conservation: the better an ecosystem is known, the less likely it will be destroyed. As the Senegalese conservationist, Baba Dioum has said 'In the end, we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught. 194

If we cannot learn to accept the Land Ethic in our own yards and learn to live with Nature, then how will we ever apply its teaching to the larger world around us. Aldo Leopold said:

This [a destroyed prairie remnant] is one little episode in the funeral of native flora, which in turn is one episode in the funeral of the floras of the world. Mechanized man, oblivious of floras, is proud of his progress in cleaning up the landscape on which, willy-nilly, he must live out his days. 195

Hopefully, this type of progress can be held in check and ultimately reversed as natural landscaping continues to spread across the Nation. Local weed laws, a remnant of an age of conformity and misunderstanding, must be reviewed and revised to make way for this change.

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Last updated on Thursday, March 9th, 2006 URL: http://www.epa.gov/greenacres/weedlaws/JMLR.html%23The%20Judicial

Missouri Revised Statutes

Chapter 263 Insect Pests and Weeds Section 263.450

August 28, 2006

Noxious weed, defined--designation of noxious weed by director of department of agriculture.

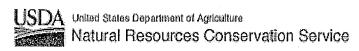
263.450. As used in sections 263.450 to 263.474, the term "noxious weed" includes bindweed (Convolvulus arvensis), Johnson grass (Sorghum halepense), multiflora rose (Rosa multiflora) except when cultivated for or used as understock for cultivated roses, Canada thistle (Cirsium arvense), musk thistle (Carduus nutans L.), Scotch thistle (Onoprodum acanthium L.), purple loosestrife (Lythrum salicaria), and any other weed designated as noxious by rules and regulations promulgated by the director of the department of agriculture.

(L. 1992 H.B. 1199 § 1, A.L. 1993 S.B. 52)

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Scientific Name



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PLANTS TOTAL

- Alternative Crops
- Characteristics
- Classification
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- Ecological Site Information System
- Plant Materials Web Site
- Other NRCS Tech Resources

You are here: Home / Invasive and Noxious Weeds / Invasive and Noxious Weeds Results

E

Invasive and Noxious Weeds

NRCS Invasive Species Policy Invasive Species Executive Order 13112

Missouri State-listed Noxious Weeds

12 records returned

Click on an accepted name below to view its PLANTS Profile with more information, ar available. Noxious weeds that are synonyms are indented beneath the current PLANTS name.

Revised Statues of Missouri. 2004. *Insect pests and weeds* (20 October 2003). Missou of Agriculture.

Symbol	Scientific Name	Noxious Common Name	State Weed Status†
CASA3	Cannabis sativa L.	marijuana	NW
CANU4	Carduus nutans L.	musk thistle	NW
CIAR4	Cirsium arvense (L.) Scop.	Canada thistle	NW
COAR4	Convolvulus arvensis L.	field bindweed	NW
DIFU2	Dipsacus fullonum L.	common teasel	NW
DILA4	Dipsacus laciniatus L.	cut-leaved teasel	NW
LYSA2	Lythrum salicaria L.	purple loosestrife	NW
ONAC	Onopordum acanthium L.	Scotch thistle	NW
PUMOL	<i>Pueraria montana</i> (Lour.) Merr. var. <i>lobata</i> (Willd.) Maesen & S. Almeida		
PULO	Pueraria lobata (Willd.) Ohwi	kudzu	NW
ROMU	Rosa multiflora Thunb. ex Murr.1	multiflora rose	NW
SOHA	Sorghum halepense (L.) Pers.	johnsongrass	NW
			•
†Code Weed Status			
NW	Noxious weed		
*Code I	U.S. Nativity Introduced		

1 except when cultivated for or used as understock for cultivated roses

Additional information about noxious plants in this state can be found at:

- MO-Missouri Department of Conservation
- MO-Missouri Insect Pest and Weed Statutes
- MO-Missouri Vegetation Management Manual

Missouri Department of Conservation

- Fishing
- Hunting & Trapping
- Forestry
- Nature
- Private Land
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Missouri Vegetation Management Manual

edited by Tim E. Smith, Botanist, Natural History Division

Navigation

- Introduction
- Acknowledgements
- Herbicide Names and Uses
- Autumn olive
- Black locust
- Bush honeysuckles
- Canada thistle
- Common buckthorn
- Crown vetch
- Cut-leaved and common teasel
- Garlic mustard
- Gray dogwood
- Honeylocust (see Black locust)
- Japanese honeysuckle
- Johnson Grass
- Kudzu
- Leafy Spurge
- Multiflora rose
- Musk Thistle
- Osage Orange
- Purple loostriife
- Reed canary grass
- Sericea lespedeza
- Sesbania
- Smooth sumac
- Sweet clover (white and yellow)
- Tall Fescue
- Wintercreeper
- Management experience submission form
- Downloadable Adobe .pdf version (2 MB)

Introduction



In October of 1992, the Missouri Department of Conservation and the Natural Areas Association hosted a workshop for land managers entitled "Managing Problem Exotic Plant Species in Missouri and the Midwest." At that workshop a number of problem plant species were addressed with a focus on effective control measures on public lands. Speakers from throughout the Midwest contributed their experiences and expertise on mechanical, chemical, and biological methods for controlling exotic or native plant species that can cause problems on public or private lands.

The purpose of this manual is to provide land managers a compilation of control recommendations from workshop participants as well as from available published and unpublished material on plant species of concern. The scope of this effort was broadened to include guidelines not only for those species addressed at the workshop, but also for some additional Missouri problem plants for which control methods are documented. The twenty-four guidelines that follow are intended to alert managers to aggressive exotic plants that may require control as well as to give specific recommendations for treatment. Results cannot be guaranteed using the methods given here because of the variability between sites where these plants may occur. We are in the early stages of learning the best treatment methods for many problem species. Nevertheless, managers can save years of experimentation by learning from the successes and failures of others. A list of references is included with each guideline to allow for further study of pertinent literature or to contact other management personnel with experience in controlling particular species.

Although an attempt was made to include most problem plant species currently requiring control in Missouri, there are certainly additional species that will join the ranks of Missouri's problem exotics in the future. These may be aggressive exotics that should be controlled wherever they are found, or they may be native species which are only problems in specific settings where their spread is at the expense of a natural community that should be protected. The following list consists of species not included in this manual that have presented management problems in other states and may create problems in Missouri now or in the future.

- Moneywort (Lysimachia nummularia)
- Quaking aspen (Populus tremuloides)
- Round-leaved bittersweet (Celastrus orbiculatus)
- Siberian elm (Ulmus pumila)
- Silver poplar (Populus alba)
- Wild parsnip (Pastinaca sativa)
- Caucasian bluestem (Andropogon bladhii)

- Burning bush (Euonymus alatus)
- Common privet (Ligustrum sinense)

Managers should be aware of the potential aggressive spread of these species on public lands, so that, if control becomes necessary, it can begin before the species becomes well-established, recommendations given for the use of herbicides in this manual are subject to label restrictions. By law, herbicides may only be applied according to label directions. The herbicides recommended in this manual are general use herbicides with the exceptions of Tordon 101 Mixture and Tordon K for kudzu treatment. Pesticide application certification is governed by state laws and therefore varies by state. For safety reasons, it is a good idea for persons who will be dealing with even general use herbicides to get pesticide certification, whether required by law or not. In Missouri, certification and recertification classes are taught by the Missouri Department of Agriculture.

This manual is provided as a three-hole-punched manuscript that can be kept in a looseleaf binder and added to as further material is gathered on the species included or as additional species' recommendations become available. It is hoped that this document will be a useful resource for land managers in controlling aggressive exotic and native plant species. Comments are welcome on the recommendations presented here. As managers gain experience with controlling unwanted vegetation, that experience can be incorporated into future revisions. A form is provided at the end of this manual that may be used to submit additional management experience.

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