



The Good, the Bad (Wasteful and Ugly) & Extraordinarily Beautiful

Roadside Management in Kansas

Photos and Article by **Ron Klataske**

These *public lands* are in plain sight but often overlooked, and in the past, seldom considered important for their extraordinary ecological or aesthetic values. If anything they have been managed as a burden on taxpayers, requiring expenditures of multiple millions of dollars each year just to keep them mowed. Yet, they are the grasslands of Kansas that are within easy view of more residents and visitors every day than any combination of other lands managed for public purposes. They encompass 150,000 acres along state-administered highways alone. With 20,000 miles of linear vegetated buffers, they total a distance greater than the circumference of the Earth at this latitude!

This 20,000-mile figure represents vegetated rights-of-way (ROW) strips on both sides of the 10,000 miles of highways administered by the Kansas Department of Transportation (KDOT). However, it does not include the broad roadsides on both sides of the 236-mile reach of highway managed by the Kansas Turnpike Authority. The turnpike involves an additional 8,000 acres of land.

Audubon of Kansas has advocated three key elements as part of its conservation priority: urging KDOT staff to improve 20,000 miles of rights-of-way with policies and management practices designed to reduce mowing and herbicide applications; establishing more beneficially-timed “mow-out” regimes; and seeding with only native grasses and wildflowers on newly disturbed reconstruction sites.

Starting with a Bad Situation and Roadblocks.

This campaign is a continuation of advocacy initiated forty years ago. At that time the state highway department practice was to mow everything from fencerow to fencerow **FOUR TIMES** every year! The cost was astronomical. The head of the maintenance division bluntly told me in his Topeka office in the early ‘70s that he



wasn't having "any do-gooder upsetting his apple cart!" I was surprised by the absolute rejection of any consideration of any changes by this public servant.

Previously, in 1971 I was involved in presenting a National Audubon Society award to the Nebraska Department of Roads for that agency's trail blazing leadership in naturalistic roadside management. The presentation was made at the American Association of State Highway and Transportation Officials' meeting in Miami, Florida. The citation presented to the Nebraska DOR read:

"For combining the principles of ecology and economy through a policy of seeding mixtures of native grasses along roadways and by limited mowing to 15 feet from the edge of surfacing thereby harmonizing roadsides with the Nebraska landscape, improving natural beauty, conserving wildlife and enhancing the environmental values of rights-of-way areas."

Following the earlier rejection in Topeka, we (a coalition of conservationists) had a much more encouraging meeting with Jerry Brindle, general manager of the Kansas Turnpike Authority (KTA) in early 1972. That was followed by dramatically improved mowing reductions that very year, and the practices remanded in place during his leadership tenure. There was no bureaucracy in play within the KTA at that time! An array of previously mowed wildflowers reached maturity and literally covered some roadside vistas with gayfeathers and goldenrods late that first summer. It was like an epiphany of nature. We still have the photographs.

With the stonewall resistance unlikely to give way at the Kansas Highway Department (now KDOT), we shared our concerns with Governor Robert F. Bennett in the spring of 1976. Governor Bennett was fiscally conservative and he took an active interest. A meeting was arranged with the receptive twelve-member Highways Advisory Committee in March, and that was followed in May by an

**Beneficiaries of ROW
Habitat Range from
Bobwhites to Butterflies.**



announcement that a policy change would allow the agency to reduce mowing on tens of thousands of acres. A permit system was also implemented to discourage the common practice of "hay rustling" from these public lands.

Agency paradigms die hard, however, and we've had seven changes in the governorship since Governor Bennett encouraged a new approach. A lot of budgets were padded for decades with the previous approach, and it isn't easy -- even for governors -- to change bureaucracies within agencies when millions of dollars are involved and "policies" can be interpreted differently at many levels. The larger the budgets, the more employees under each command, and the higher the wages for some administrators!

It is Especially Difficult to make LASTING CHANGES.

Some progress was made resulting in: significantly reducing the number of times the rights-of-way were mowed annually, and decreasing the amount of herbicide applied by private companies and county weed departments. But the changes were not enough to substantially enhance the ecological or aesthetic values. With a degree in wildlife biology, Governor Mike Hayden expressed a strong interest in promoting reduced-mowing policies and a much more naturalistic approach. However, as was relayed later, the

philosophy in some (but not all) KDOT districts was that "this will all pass, and we'll have another change in administration." Governors have many other things demanding and diverting their attention and cannot ride herd everywhere or in every season to determine if their policies are implemented at every level.

KDWP Secretary Steve Williams, who served under Governor Graves, added his endorsement and joined me for a presentation to the KDOT secretary. Lower-level KDOT staff were sent in the KDOT secretary's place and it therefore failed to become much of a priority for the agency. Over time, however, KDOT staff within the landscape-architecture division, who shared our vision, worked with us to make incremental progress. Troy Schroeder of KDWP was also very helpful, and representatives of other organizations (Pheasants Forever and Quail Unlimited) added their philosophical support.

Fast forward to the administrations of Governor Kathleen Sebelius and Governor Sam Brownback for the two most encouraging developments: first, the leadership of KDOT Secretary Deb Miller who served with both administrations (until the end of 2011), and second, the expression of support and leadership by Governor Brownback in early 2012.

Following an Audubon of Kansas request in 2007, KDOT Secretary Deb Miller expressed her willingness to consider changes in roadside maintenance practices, and she established the Aesthetics Task Force (ATF) in early 2008. It consisted of biologists with

wildlife organizations, native plant botanists, a KDWP biologist, and several KDOT staff members including Clay Adams, who served as chairperson. Following months of meetings and opportunities to share and discuss information, the task force's report was finalized and presented to Secretary Miller in December. She endorsed the findings. It called for more universal implementation of the "limited mowing policy" already in place, and additional reductions in mowing to pare down some of the **\$6.6 million spent on mowing each year**. That figure probably did not include the capital costs of equipment, employee benefits and all the other state costs. Millions spent on unnecessary mowing "is a lot of money."

"Two hundred thousand dollars is a lot of money. We're gonna have to earn it."

—"Blondie," in the 1966 movie, *The Good, the Bad and the Ugly*

During the summer of 2008 prices for diesel and gasoline were extraordinarily high and that was an added motivation for reduction of mowing. Secretary Miller sent a directive to hold down consumption and costs, and KDOT maintenance units limited mowing to approximately 15 feet out from the shoulder in most areas. As a result, native grasses and wildflowers were incredibly showy along state highways that fall.

In addition to reducing costs, limited mowing can become part of the state's energy conservation plan by limiting fossil-fuel consumption through reduced miles driven/hours of operation for tractors and support trucks.

The final report acknowledged that: "It is the general consensus of the Task Force that the policy as written is not followed uniformly throughout the State. There seems to be entirely too much mowing in most areas and both sides of the highway are rarely left unmowed at the same time. Mowing native grasses and forbs is generally unnecessary...." One of the



K-18 near Manhattan before and after untimely mowing in 2010. The cost was both ecological and much of the state's investment in seeding wildflowers.



circumstances that allows policies to be ignored is the fact that there are reportedly 212 KDOT subdivisions involved in maintenance throughout the state. They may not be independent fiefdoms, but it sometimes seems like there is little accountability beyond their "jurisdiction." Thus, policies established by administrative personnel headquartered in Topeka aren't always implemented.

Within a year there was a return to far more extensive mowing. Mowing out to the fencerows in many places, even while native grasses and wildflowers were in full bloom, was commonplace in the fall of 2009. It appeared that the mowing recommendations of the ATF were already being ignored, and by the fall of 2011 – after Secretary Miller announced that she was leaving the position – it appeared that

mowing doubled and accelerated much more in many areas. The previous observance of fifteen feet from the shoulder became thirty feet overnight, and this year we've observed complete mow-out on both sides of some highways, extending a half to a mile or more from small towns or intersections, and in areas near streams.

We were concerned following the departure of Secretary Miller. Based on a discussion on this subject with then-Senator Brownback on the 2010 campaign trail, our observance of his leadership promoting preservation of the Flint Hills, and his interest in reducing wasteful spending, we believed that it was compelling that we provide him with the results of the ATF report and an opportunity to hear from a broad spectrum

of conservation leaders. Governor Brownback hosted a meeting in his office on February 23, 2012. The conservation delegation included Chip Taylor with Monarch Watch, Fred Coombs with the Kansas Native Plant Society, Steve Sorensen representing the Kansas Wildlife Federation, John Schukman with the Northeast KS Upland Bird Partnership, Doug Rubick with the Smoky Hills Audubon Society, Jordan Martincich and Marc Glades representing Pheasants Forever/Quail Forever, and me on behalf of Audubon of Kansas. Robin Jennison, Secretary of KDWP&T, also participated, pointing out at the onset that this is one issue where he fully agrees with me!

The 18-page illustrated briefing document presented to the governor is available on the AOK website. The photography helped to illustrate all of the key points we made to the governor. A highlight of the meeting was the governor's statement that he would be inclined to reduce mowing – for economic, ecological and aesthetic purposes – even more than we had suggested. Iowa, Illinois and several other Midwestern states do very little ROW mowing along their major highways.

Governor Brownback asked us to schedule a meeting with the next KDOT secretary to share our collective perspective, and we did that soon after Mike King was confirmed. Secretary King was receptive and open-minded, his background operating a construction company likely brings a somewhat different set of priorities, and he arrived in his new job with a lot of other things on his plate. The conservation community needs to build additional stakeholder support for our objectives and share that with him.

The Merit of Sharing Your Views with Governor Brownback

With the governor on the same wavelength as the conservation community, and Secretary King receptive, it is now everyone-who-cares' obligation to provide citizen support so that the governor's endorsement doesn't end there without any impact or implementation of the ATF's policies. Although it is useful to share one's views with local KDOT

employees, it is potentially far more beneficial and effective to send letters to the governor. He in turn can share them with Secretary King and then they can go beyond to the district level. It is as important to point out examples of places where KDOT is doing an excellent job of "stewardship" of this resource as it is to highlight the places where their maintenance approach is destructive. Please see the sidebar box for contact information.

Prior to the advent of email, Congressman Larry Winn (R-KS) once told me that he figured that one well-written letter represented the views of 10,000 people, because the other 9,999 never get around to articulating their thoughts in writing. A written letter is still the best. E-mails can also be forwarded. Phone calls are good if they are timely and not disruptive, but a phone message cannot always be forwarded effectively.

A State Budget Cut (or Redirection) that will Benefit Ecological Resources in Kansas

Many people overlook the fact that fiscal conservatism and conservation are sometimes perfect complements to each other.

At a time when funding for many state government programs, including education, has been or is being reduced, it

seems inexcusable for KDOT to be spending multiple millions of dollars to needlessly cut grass – especially considering that this action often does more harm than good. Sometimes it simply seems to be "make work." This is one of those occasions when it is possible to advocate a state budget cut that will benefit ecological resources in Kansas. If KDOT'S budget cannot be reduced, better alternatives for those funds within KDOT are possible.

Governor Brownback asked if we had any suggestions for redirection of the funds if some of the mowing expenditures that could be saved. Our consensus was that there is a need for KDOT to effectively address and control a class of invasive plants that are spreading from highway roadsides. Known as "old-world bluestems" generically and specifically Caucasian Bluestem, these non-native invasive grasses may be the most severe long-term threat to native grasslands. This grass gets started in disturbed areas and spreads – essentially choking out all other native grasses and vegetation. State highways and some county roads appear to be the primary places where it has established strongholds, possibly from contaminated seed or mulch used initially on the roadsides, and then spreading with mowing operations and wind. Harvesting hay from infested roadsides has the potential of spreading it far and wide.



The Caucasian Bluestem along this road is taking over native range in the Flint Hills.

Once they become established, these grasses are aggressive and competitive – and very difficult to eradicate. They should be designated as state "noxious plants."

As with *Sericea lespedeza* and many other invasive plants, old-world bluestems were inauspiciously developed and promoted by misguided agronomists with USDA connections, and then commercialized by seed producers. They were planted on hundreds of thousands of acres in CRP fields in Texas and Oklahoma.

In addition to dealing with the growing threat of Caucasian Bluestem, it would be nice if the funds could be used for enhancement of the vegetation. Overseeding with wildflowers and native grasses, strategically planting native shrubs, and controlling brome grass would all improve ecological and aesthetic roadside resources.

Roadsides can be a Showplace for a State's Natural Beauty and Native Prairie Flora.

Ladybird Johnson was one of our country's most successful advocates for practices to encourage roadside wildflowers and her legacy still exists in Texas. However, the June and September display of prairie wildflowers in parts of Kansas is equally as impressive as the early spring Bluebonnets of Texas. With a succession of different wildflowers from

April thru October, a hundred or more species add beauty and interest to roadside vegetation in areas where it has not been drenched with herbicides in the recent past, set back with excessive and recent mowing, or overwhelmed with brome grass (historically planted) or other invasive non-native grasses. Native grasses, including Indian grass, switchgrass, big and little bluestem are also showy during the fall and winter.

Obviously vegetation of this nature is excellent habitat for a diversity of beneficial pollinating insects. Butterflies, native bees and honeybees depend on a succession of blooms for nectar, and the foliage is necessary for various life stages and overwintering habitat for some species. In many cultivated landscapes there are very few, if any, suitable habitats available.

The same is true for a number of grassland and shrub-nesting birds. The relatively undisturbed linear habitats of roadsides can provide habitat that is not otherwise available – habitat for nesting, foraging for insect foods for broods, loafing and roosting cover. Depending on the setting, the list of birds utilizing roadsides for nesting can include Northern Bobwhites, Pheasants, Eastern and Western Meadowlarks (our State Bird), Brown Thrashers, Bell's Vireos, Dickcissels, Indigo Buntings, Mockingbirds, Eastern Kingbirds, Sedge Wrens, Mourning Doves, Song Sparrows, Lark Sparrows, Grasshopper Sparrows, Eastern Towhees and Blue Grosbeaks.

I've often thought that if KDOT hired only quail and pheasant hunters, and birders for district and local maintenance staff, there would be far less mowing/brush-hogging of grasses, wildflowers and native shrubs – as recommended by the ATF report – and only spot spraying with herbicides.

After the leaves had fallen, I once counted 18 nests, mostly of Red-winged Blackbirds, in a narrow 200-yard long strip of shrubby roadside on the once-wetland southwestern edge of Lawrence. While taking photos of rights-of-way, it was extremely disappointing to observe hen pheasants and Red-winged Blackbirds being flushed from their nests by a private, hay-harvester along I-70 just west of Quinter. The potential value of this kind of habitat is nothing new; research in south-central Nebraska four decades ago found that about 25 percent of wild Pheasant chicks hatched in roadside cover.

During other months of the year, the number of species that utilize unmowed roadside habitat increases as birds that nest in northern biomes migrate through or winter in the central Great Plains. This list includes Spotted Towhees, Dark-eyed Juncos, Harris's Sparrow, White-throated Sparrow and many others. It is best from several perspectives if the outer ROW areas are not mowed until late winter or early spring. For all of the birds, tall vegetation (especially stiff-stemmed native grasses) can be vital for thermal protection and shelter from cold rain and blowing snow, and the seeds from sunflowers and other forbs provide high protein food.

Of particular note and importance in Kansas, there are usually thousands of visiting and resident Red-tailed Hawks that use perches on or along roadsides to hunt for small rodents in these grassy habitats. After crop fields have been cultivated, and pastures grazed down, these are often the best habitats that provide sufficient opportunity for these wintering raptors to obtain prey. We have conducted surveys and counted nearly 100 hawks in a distance of 100 miles, with most of them on hunting perches within fifty yards of roadside habitat.

Limited mowing practices and the planting of native grasses and forbs on roadsides serve as filter strips and buffer areas, which help to remove pollutants from roadside runoff and help to keep



Stiff-stemmed ROW vegetation is an effective "living snow fence."

many kinds of litter from washing into nearby streams, rivers and lakes. Allowing deep-rooted native plants to mature also helps to capture sediment and pollutants, prevent ditch erosion and bank slides. Whereas soil conservation and water quality agencies recommend retention of the vegetative structure that best serves these purposes, KDOT regards these areas as “drainage ditches” to be mowed with two passes. **It is not uncommon to see steep slopes and wet areas that have been torn up by an overly-ambitious crew with tractors and mowers, getting stuck, destroying vegetation and sometimes damaging equipment.**

While some KDOT crews are determined to mow down thousands of miles of vegetation of what are, in effect, “waterways” paralleling highways, taxpayers are providing funding for establishment of filter strips and riparian buffers on farms. In Kansas, federal funds totaling approximately \$1,440,650 are paid annually to landowners who have established 28,817 acres of filter strips, and another \$146,600 for riparian buffers. Likewise, 29,301 acres of upland game-bird habitat (mostly field buffers) and 1,365 acres of pollinator habitat are enrolled in the Conservation Reserve Program (CRP) to help these declining wildlife species—which can also benefit from improved roadside-management practices, even if the roadside habitat is not as good for all species acre-for-acre and mile-for-mile.

Unmowed vegetation, especially stiff-stemmed native grasses and forbs serve as “living snow fences” and help to keep snow from blowing across road surfaces in many areas. This enhances safety and reduces the cost of snow removal and salt applications. Everyone who has

experienced “ground blizzards” knows the importance of structural or “living snow” fences. Reductions in road closings are important for everyone who has a need to travel, whether



they are truck drivers or student passengers on a school bus. The most critical ROW areas that should NOT be mowed prior to late winter/early spring (ideally March) are those on the north side of state highways and Interstate 70 as it crosses Kansas, and in many places the west side of north-south highways. Unmowed ROW vegetation also reduces sunshine glare from snow-covered landscapes.

Ideally, KDOT should be working in partnership with USDA to encourage and help finance establishment of “living snow fences” (practice 17 in CRP) in fields adjacent to the north side of I-70. With some roadside areas mowed by KDOT and/or hay harvesters, in some areas it doesn’t seem like there is much more than a barbed wire fence between the roadway and the North Pole. As a result, when there is blowing, snow closure gates are sometimes required to block traffic from entering the interstate at various points from Hays to the Colorado state line.

Conservation Community Goals/Requests for KDOT and KTA

Please join us in urging KDOT and KTA administrators to adopt and implement recommendations of the Aesthetic Task Force. There are several additional guidelines (policies) that would serve the public interest and be of ecological or aesthetic value. They are outlined below.

1) One additional policy that should be better articulated and implemented is that mow-out of the rights-of-way (beyond the 15-foot corridor next to the shoulder) should not occur before November. In most recent years, many areas have been mowed to the fence line in October. This is usually before the first killing frost and when many of the native fall prairie



flowers are still blooming (including many of the asters, goldenrods and perennial sunflowers), before most have produced mature seed to effectively reseed roadsides, and before the plants have gone dormant.

(2) Ideally, for snow-holding capacity, water quality and wildlife benefits, scheduled mow-out should be delayed to late winter or early spring. All of the tractors have climate-controlled interiors, so there are few occasions when mowing cannot be scheduled. The policy calls for mow-out once every four years, on a rotational basis for different sides of the highway (north, east, south, west), so it shouldn't be too overwhelming to schedule appropriate timing and conditions.

(3) We believe that KDOT and other state agencies and stakeholders should cooperatively evaluate the threat of invasive grasses (starting with Caucasian Bluestem), develop a plan for dealing with ROW infestations and begin to implement control measures to prevent spreading.

(4) Most in the conservation community believe that KDOT needs to develop regulations to restrict "open range" private, hay harvesting along state-administered highways, which destroy all of the public benefits of limited mowing policies. Hay harvesting during the nesting season destroys bird nests and eliminates resources for native pollinators. Private haying practices also threaten to spread Caucasian Bluestem.

Some individuals harvest hay from long stretches of highways, turning public resources into personal gain (hay worth tens of thousands of dollars) without any consideration of public benefit. This practice is done without any payment. The conservation community generally recommends that KDOT adopt a "No Hay-Harvesting" policy, with no exceptions along the interstate system.

Requests for improvements can go through the governor's office to keep Governor Brownback informed of your interest.

Governor Sam Brownback

Office of the Governor
Capitol, 300 SW 10th Ave., Ste. 2415
Topeka, KS 66612-1590
785-296-3232, governor@ks.gov

Constituent Services

785-368-8500, csr@ks.gov

Copies or separate correspondence can also be sent to:

KDOT Secretary Mike King

700 S.W. Harrison
Topeka, KS 66603-3754
785-296-3461, mking@ksdot.org

And/or regarding management of KTA roadsides to:

KTA CEO Michael Johnston

Kansas Turnpike Authority
9401 East Kellogg
Wichita, KS 672071804
316-682-4537, MJohnston@ksturnpike.com



As this ROW was mowed for hay, nesting pheasants and songbirds were flushed from their nesting habitat.