

## Rights-Of-Way for Wildlife

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NATIONAL WILD  
TURKEY FEDERATION

You are probably familiar with the term rights-of-way (ROW), you have seen them wherever you travel. They are very important to our society. Power lines and buried pipe lines carry the energy (electricity, natural gas, etc.) to “run” our factories, businesses and homes. You could begin walking on a gas line ROW in south Texas and windup in New York, Ohio, etc. There are millions of miles and millions of acres in ROWs across the nation. These linear strips of habitat offer an opportunity for wildlife managers and sportsmen.

There are two basic kinds of ROWs, those associated with highways and those with power and gas lines. Yes, many types of wildlife frequently use road ROWs, even those on interstate and major state highways. Roads are dangerous for wildlife. Several radio-transmitted hens in one research study were killed by vehicular collision. Poachers and roadshooters like to “hunt” from roadsides. Only if you or your hunting club has complete control (i.e., locked gates) of roads should you think about improving roadsides for turkeys. Never plant food to attract wildlife on a ROW that is visible from a road.

Now to the ever present and important ROWs on electrical and gas lines. You should know that most utility companies do not own the land in ROWs. They purchase (\$/acre) a one time easement from the landowner. Landowners retain ownership and can use their land for any purpose (e.g., farm, ranch) except to grow tall trees. Utility companies maintain the physical structures, lines, and manage the vegetation.

Transmission lines move electricity from generating plants to substations, where the voltage is reduced (transformed), and then it goes into distribution lines which deliver the power to your home or business. Natural gas flows from offshore or onshore gas fields through large underground pipes.

The length of power or gas line ROWs varies. Some cross the entire country, while others might be less than a mile. Most are linked to share power. The width of transmission lines averages 100 feet and varies from 75 - 150 feet. Double lines might be 200 feet wide. Distribution lines average 20 feet wide. Imagine the number of acres that could be good wildlife habitat.

ROWs go through all parts of the country, and traverse major and minor ecosystems or habitats. Many acres of ROWs are in agricultural fields, which if next to forests could be advantageous to wildlife. ROWs are usually a different habitat type than adjacent forests or fields. Thus, ROWs add habitat diversity to the landscape.

Vegetation = habitat = wildlife! So, plant community structure (height, number of layers), density (number of stems) and species com-



AMERICAN ELECTRIC POWER

*There are millions of miles of ROWs across the nation.*



*ROWs add diversity to the landscape.*

position or richness are the primary factors. Utility companies must eliminate tall trees from ROWs. Trees are a hazard, they could eventually “reach” into the lines and cause power outages and destruction. Vegetation is also managed to permit safe access for line crews to make repairs. Safety and efficient delivery of energy are paramount considerations—wildlife habitat and wildlife are secondary. We can accept this.

### **WILD TURKEY USE OF RIGHTS-OF-WAY:**

#### **Food**

Turkeys inhabit all major forest types and obtain a variety of food (e.g., hard and soft mast, green forage, seeds, and insects) from forests. They also roost in trees and use forests for protective or escape cover. Forests also provide shade. Forests adjacent to ROWs would be an ideal situation.

What about nonforest habitats?

Turkeys use many nonforest habitats, such as hayfields, pastures, and row crop fields. Nonforest habitats can be critical to turkeys, especially when mast (e.g., acorns) failures occur in forests. Fields provide alternative food sources, and more insects than forests.

There is another nonforest habitat often used by turkeys—old fields. These are abandoned agricultural fields. Farmer Brown moves to the city and his agricultural fields are no longer worked; they revert to natural plant communities, old fields, and eventually forests.



*Wild turkeys frequently use ROWs.*

Do turkeys use old field habitats? Yes! They provide a variety of turkey foods: soft mast (fruits, berries), seeds, green forage, insects and other invertebrates. On a per acre basis, old field vegetation produces more green forage and insects than old forests. Vegetation on ROWs can be similar to old field vegetation. Grasses, sedges (grass-like plants), forbs, vines and some shrubs (bushes) predominate. What is a forb? They are frequently called weeds or broad-leafed weeds, but they are not weeds to the wild turkey. There are hundreds of species of forbs, such as ragweed, pokeweed, milkweed, and smartweed. The forb category also includes the many important plants called legumes, such as lespedeza, beggar-lice, partridge pea, and clover. Many forbs produce seeds that turkeys like, and forbs attract and produce many insects. In addition, forbs provide turkeys a lot of succulent, green forage and critical vitamins for reproduction.

### Courtship Areas

ROWs are frequently used by gobblers as display or courtship (i.e., strut, gobble) and mating areas. Some gobblers go to the same general area each morning to do their thing—strut and gobble. This area is



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ROWs provide an abundance of food like blackberries.

called a lek in animal behavior talk. If the vegetation on a ROW is rather short, it can be a wonderful lek.

### Travel Corridors

Turkeys use ROWs as travel corridors. If the vegetation is not too thick, turkeys routinely move along a ROW. After a heavy rain, turkeys like to get out of the dripping

woods and dry-off; they go to a ROW. On cold mornings they can bask in the early morning sun in openings — ROWs.

### Nesting and Brood Rearing Areas

The most important turkey use of ROWs is for reproduction. Several studies have found that many hens selected old field vegetation on ROWs for nesting. If the plant community adjoining a ROW is mature, uncut, hardwood forest, then there probably is little or no suitable nest habitat. Most hens will seek a plant community with a rather dense ground layer of vegetation—an old field—a ROW. Vegetation on ROWs can also serve as good brood-rearing habitat. A multitude of insects, berries, and seeds with protective overhead cover is what a hen seeks to raise her brood. She will probably stay around the edge of the ROW, where the forest and ROW adjoin. Poults can venture onto the ROW searching for bugs, and the woody vegetation on the edge will afford them escape and protective cover, and cool shade. So, ROWs can provide the most important habitats, those



MARCIA W. GRIFFEN

Wild turkey hens may nest adjacent to ROWs.

used for reproduction.

### Edge

ROWS provide millions of miles of edge. Edge is where different plant communities (i.e., habitats) meet. If a hardwood forest meets a ROW, an edge results. The close proximity of the forest and old field habitat offers a variety of resources (e.g., food) for turkeys and other wildlife. Some species, such as quail, turkey and deer, are thought to be edge-species; they benefit from having edges. Recent studies have found that edge is detrimental to other species, such as some songbirds (neotropical species). As usual, when habitats are altered, some species benefit and others suffer.

## ROWS AND OTHER WILDLIFE:

The old field plant community that is good for turkeys is also good habitat for small mammals (e.g., mice, cotton rats) and rabbits. So? Well, an abundance of rats and rabbits attracts a variety of predators: coyote, fox, bobcat, hawk, owl, and snake. Old field habitats also are used by turkey egg-eaters: skunk, opossum, and raccoon. The food chain begins with grasses and forbs, which are eaten by rats and rabbits, which are eaten by predators, who might also eat turkey eggs, poults, and adults. That's life (or death).

Old field vegetation on ROWs can provide an abundance and diversity of deer forage. Deer feed from a host of forbs, grasses, vines, and woody plants. Total deer forage is much greater on ROWs than in forests because the sun is not interrupted by layers of trees as in a forest. While hard mast (e.g., acorns, beechnuts) cannot be produced on ROWs, soft mast (e.g., blackberries, huckleberries) can be produced. Vines, such as honeysuckle and greenbriar, not only produce excellent deer forage but also produce berries. Vegetation on ROWs can be used as bedding and fawning areas, as well as travel lanes. Supplemental food plantings are frequently placed on ROWs.

Managed ROWs can provide

several important habitats for the bobwhite quail. Old field habitats provide nest, brood-rearing, roost, escape, travel, and feeding areas. Strips of bicolor, Kobe, or Korean lespedeza can be planted for winter food. Strip-disking is used to decrease plant density, increase amount of bare soil, and rejuvenate the forb seed producing component.

This type of habitat is also important to other species of songbirds and butterflies. The habitat created by managing the ROWs, again provides areas for nesting, brood rearing and feeding areas for many bird species. This type of management promotes many native plants that are also needed by butterflies and other insects.

## MANAGING ROW VEGETATION:

The key part of the word management is man. Man, the utility company, must manipulate the vegetation to first exclude trees and second to enhance old field plants. Many of you have heard of plant succession, the natural, long-term change in plant communities. If you abandon a cultivated field, it soon becomes a plant community dominated by annual and some perennial weeds (forbs). Gradually, a forb/grass community develops.

Rather quickly (3 - 5 years), depending on seed sources, soil and climate, grasses become dominant. In the South, during the next stage, pine and hardwood species invade the area, and in about 10 years you have a pine forest. Forest composition changes over time to a pine-hardwood forest, and finally, 150 years after abandonment, a climax oak-hickory forest occupies the site. From bare soil to a forest, remarkable. Dominant species and the type of climax plant community vary by region.

A forest community is not allowed on ROWs. The utility company vegetation manager controls unacceptable vegetation by bush-hogging (mowing) or herbicides. The goal is to kill all tree stems/species that could become tall. We are fortunate in that what vegetation conditions the utility companies want are good for turkeys and other wildlife.

Utility companies have been managing vegetation mostly by bush-hogging every three or four years. However, they know that if you mow oak, hickory, or sweetgum trees, you get many more stems through sprouting. Bush-hogging does not solve the problem.

With the development of new herbicides, many utility companies have changed to them for hardwood



STEVE MASLOWSKI/USFWS

Songbirds nest and forage in ROWs.

control—kill'em once. This prevents multiple sprouting and releases or allows the more desirable grasses and forbs to grow. If evergreen tree species (e.g., pine, cedar) are present, then a tank-mix will have to be used to control hardwoods and conifers. Sometimes a combination of treatments is necessary to gain control of the vegetation. Some ROWs have been mowed for decades and the hardwood brush (trees) is very tall and dense. First bush-hog it, let the woody plants sprout back, then apply a herbicide. The rate of herbicide application is being greatly reduced. Low volume selective applications are becoming the normal practice. Modern herbicides used on ROWs have low toxicity (Caution) labels and only affect the photosynthetic process, and when used properly are not toxic to you or wildlife. Methods of application and applicators are strictly regulated.

If the tree problem is not too bad, the herbicide can be applied from trucks by hand-held hoses or individuals with back-pack sprayers. This method can be beneficial for turkeys and other species. Professional wildlife managers or botanists can train crews to NOT spray the good bushes/shrubs, those that are not trees and will not interfere with the powerlines or buried pipes. They can spare blueberry, huckleberry, blackhaw, American beautyberry, etc. They also can save patches of fruit producing vines, such as dewberry, blackberry, and raspberry. This practice will promote turkey foods and save the companies time and chemical.

### ENHANCING OLD FIELD HABITATS:

A problem with old field habitats is that they gradually become too dense or too thick. Dense vegetation is good for rats and rabbits, but is less favorable for quail and turkeys. Grasses tend to dominate the community, excluding forbs. Some vines, such as honeysuckle, might also dominate a long stretch of a ROW. Now what do we do? The utility company does not have a bad problem; the dense, low-growing vegetation is okay. It prevents erosion and

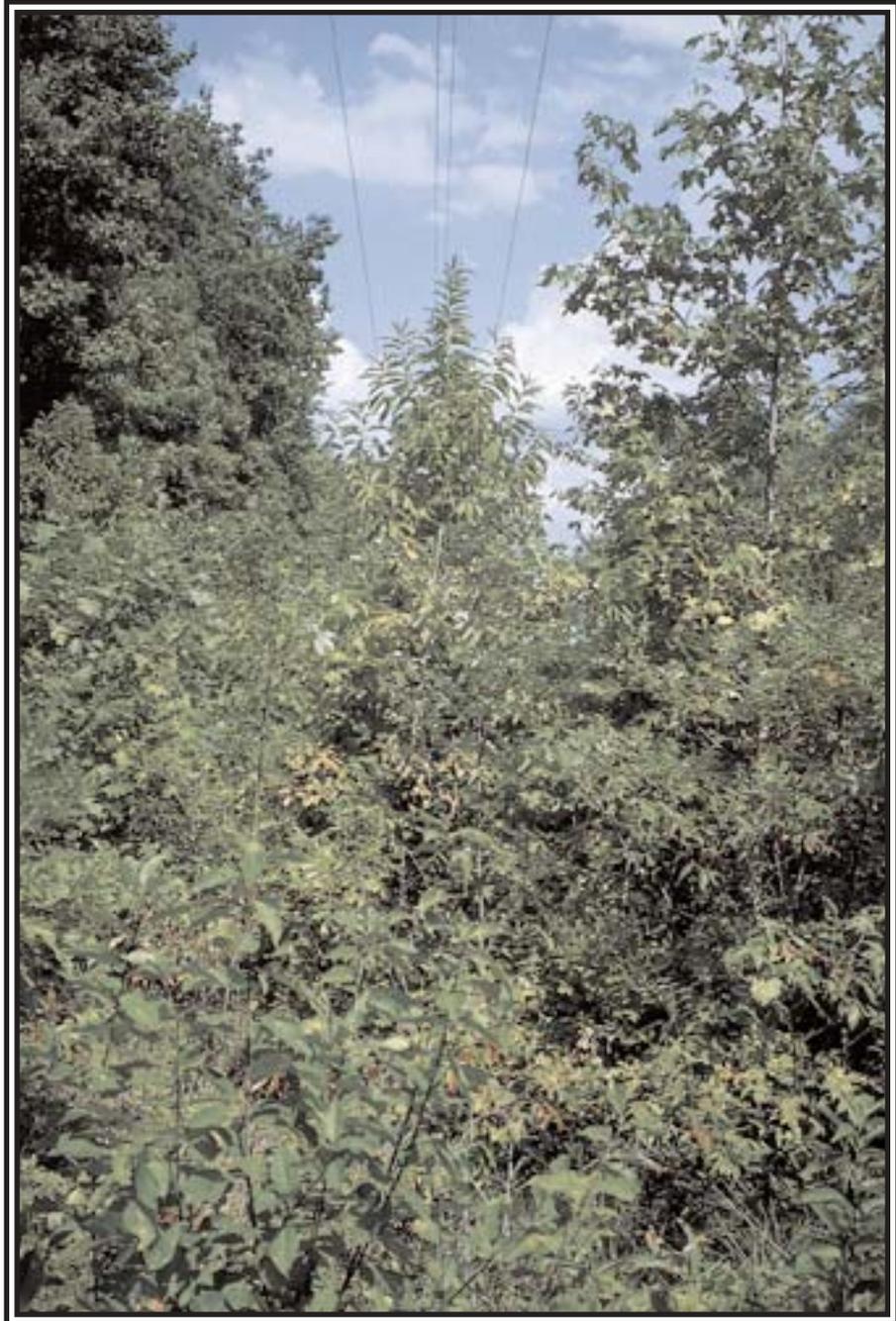
can be driven over. The problem is ours. We want to rejuvenate the plant community, create some open ground, and favor forbs. Some form of vegetation disturbance is needed. However, we cannot afford major vegetation management programs.

### MANAGEMENT OPPORTUNITIES:

The NWTf has implemented a program to work with energy companies on their management of ROWs, with the main goal of improving wildlife habitat. This pro-

gram, called Energy for Wildlife, helps each member company to implement a management plan to provide a diversity of wildlife habitats along ROWs. All this is accomplished while still providing for the safe and reliable transmission of energy to customers.

Energy for Wildlife promotes the use of "IVM" (Integrated Vegetation Management), which includes mowing, hand cutting, selective low-volume herbicides and biological treatments to control vegetation. Each company utilizes IVM and follows planned objectives to determine the



*Unmanaged ROWs are not good turkey habitat.*

RON BRENNEMAN



*Proper use of herbicides can create excellent wildlife habitat.*

best way to control the vegetation and improve wildlife habitat along each ROW. The program provides a number of benefits to each member company, which includes helping communicate the good things being done for wildlife and their habitats. Check out the Energy for Wildlife topic under the Conservation heading at [www.nwtf.org](http://www.nwtf.org) and find out how a company can become a member. Also, find out how you can help and also benefit from the program.

Hunting clubs have worked with landowners and utility companies to improve ROWs for deer. Bush-hogging and spraying hardwood brush with an herbicide can promote deer forage. ROWs can be used for supplemental food plots, or nutrition strips for turkeys and deer. The NWTF has another program, Project HELP, which provides information and seeds or plants for turkeys. Order a catalog by calling 1-800-

THE-NWTF (843-6983). You can also get help from your state wildlife biologist, Natural Resource Conservation Service, etc.

Local chapters of the NWTF can use Wild Turkey Super Fund money for habitat enhancement projects on ROWs. Many miles of ROWs traverse public hunting areas (national forests, national wildlife refuges, state wildlife management areas, etc.). Cooperate with your local electric and/or gas companies to manage vegetation for turkeys and other species. Utility companies are looking for help and some good PR. Some companies will pay for establishment of wildlife plantings on ROWs. You guarantee the vegetation will not become a problem, no trees, and they are happy to work with you. Landowners, utility companies, and turkeys benefit if we cooperate with vegetation management.

As with all cooperative efforts,

respect the other's responsibilities and objectives. Some landowners will not want you driving on their land—ROW. Get permission to put up gates to control access. Check with the companies before doing anything around the structures/poles. In turn, ask that bush-hogging or mowing be delayed until after the turkey nesting and brood-rearing period (March-July). Work together to benefit wildlife.

Many ROWs, those indispensable ribbons criss-crossing our nation, can be managed to enhance wildlife habitats and save maintenance funds for the utility companies. ROWs often interconnect, we should connect with landowners and utility companies to enhance habitats for turkeys and many other species. The bottom line is that ROWs can be good wildlife habitat.



*A pipeline ROW planted in a grass/legume mixture.*

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