

Starting an Integrated Roadside Vegetation Management Program

Counties choose IRVM because they want:

- More organized and proactive roadside management.
- More responsible and sustainable roadside vegetation management.
- More cost-effective roadside management.
- To manage roadsides for multiple purposes.
- To take advantage of the Living Roadway Trust Fund.

The Full-time Roadside Manager

The best way to achieve these goals is to hire a full-time roadside manager. As the one overseeing all vegetation management activities, this person is focused and motivated to:

- Perform weed and brush control activities in a timely, effective manner.
- Save money by conducting more in-house operations.
- Stay current with the latest products and technologies.
- Establish and maintain healthy stands of native vegetation.
- Install and maintain erosion control measures.
- Submit LRTF applications to bring in additional resources that address county needs.

As the county's vegetation specialist, a roadside manager takes ownership of the county's roadsides with pride and accountability. When one person coordinates every aspect of the program, the result is better roadsides.



A Less Expensive Way to Get Started

A few counties have managed to plant a lot of roadsides to native vegetation without hiring a roadside manager. These counties don't get the same level of vegetation management but they do access the Living Roadway Trust Fund. The following are examples of how this has been accomplished:

- The county engineer and conservation board director work together. The engineer applies for the seed – for ditch cleanouts and road projects – and conservation does the planting.
- The county finds a current employee (e.g., the engineer or somebody working under the engineer) who personally wants to see the county get active in IRVM. In addition to his/her

regular duties, this person applies to LRTF for seed and works with road maintenance personnel to get it planted.

- The county looks for a vegetation-savvy individual already on staff in secondary roads – or elsewhere – and makes it part of his/her job to send in LRTF applications and do the planting.

Hopefully these efforts lead to the establishment of a full-time roadside manager position. Planting native vegetation and maintaining healthy roadsides takes a sustained, focused effort. Even the board of supervisors cannot make this happen without having someone in a key position who wants the program to succeed.

Where's the Savings?

Long-term savings are anticipated through the establishment of native plant species as better-adapted, more competitive vegetation. Immediate savings are realized by:



County personnel spot-spraying brush.

- Having county personnel with LRTF-purchased seed and seeding equipment reseed after road projects.
- Having county personnel with LRTF-purchased equipment spray roadside weeds instead of hiring a contractor.
- Having county personnel with equipment partially paid by the LRTF conduct tree and brush removal operations.
- Having county personnel install and maintain erosion control measures instead of hiring it done.

A professional vegetation specialist on staff can provide additional savings by:

- Conducting stormwater inspections required under NPDES (National Pollution Discharge Elimination System).
- Doing wetland delineations.
- Preparing wetland monitoring reports for mitigations.

The Role of an IRVM Citizen Action Group

Occasionally members of the public have worked to change their county's roadside management practices. Historically this has involved concerned citizens – residents of the county who want less roadside spraying and more native vegetation. The effort can start with one person or a small group who recruits like-minded friends and associates. They meet informally, someone presides, someone takes minutes and they lay out their goals over the course of a few meetings. They may contact the IRVM Program Office at the University of Northern Iowa for help at any time during the process: 319-273-2813.

Eventually this group will approach the county board of supervisors – the ultimate policy-making body at the county level. The board of supervisors may prove more receptive if the citizen group includes people such as an NRCS employee or SWCD commissioner, a CCB or DNR natural resource manager, a member of a habitat group, someone representing farming interests, an educator, a botanist or a weed control professional. The point is to fortify the effort with respected individuals who can address the board of supervisors with candor and knowledge.

When the citizen group is ready, it should arrange a meeting with the board to present the outlined goals. Unless the supervisors are able to clear most of the agenda for one of their regular meetings, a special meeting will facilitate better discussion. Most of the citizen group members need to be present. The desired outcome at this time is for the board of supervisors to appoint a formal IRVM committee to look closely at the county's current roadside management program and determine what's best for the county. Recommended IRVM committee membership can include: a member of the board of supervisors, the county engineer, the road superintendent/foreman, the weed commissioner, a member of the conservation board and key members of the original committee.

Assessing the County's Current Roadside Vegetation Management Program

The **County Vegetation Management Survey** (*Appendix 1a*) can serve as a basis for evaluating a county's roadside vegetation management program. Obtaining meaningful responses may require interviews with members of the road maintenance crew or others directly involved. Consider county herbicide-use records, noting herbicide products, quantities and costs. Consider spray records to determine who does the spraying, when it occurs, the technology used and the miles covered each year.

Though responses to the survey questions can be subjective, they will help identify and prioritize personnel and equipment needs. The process will involve compromise. In the end, weed and brush control objectives are balanced against environmental concerns and limited county resources. With that in mind, determine an appropriate allocation of county resources. Also determine how much might be solved with better organization and efficiency.

A successful outcome to this process would be to have the board of supervisors dedicate a full-time position and budget to roadside vegetation management. The next step is to hire a resourceful person motivated to get the most done within that budget.

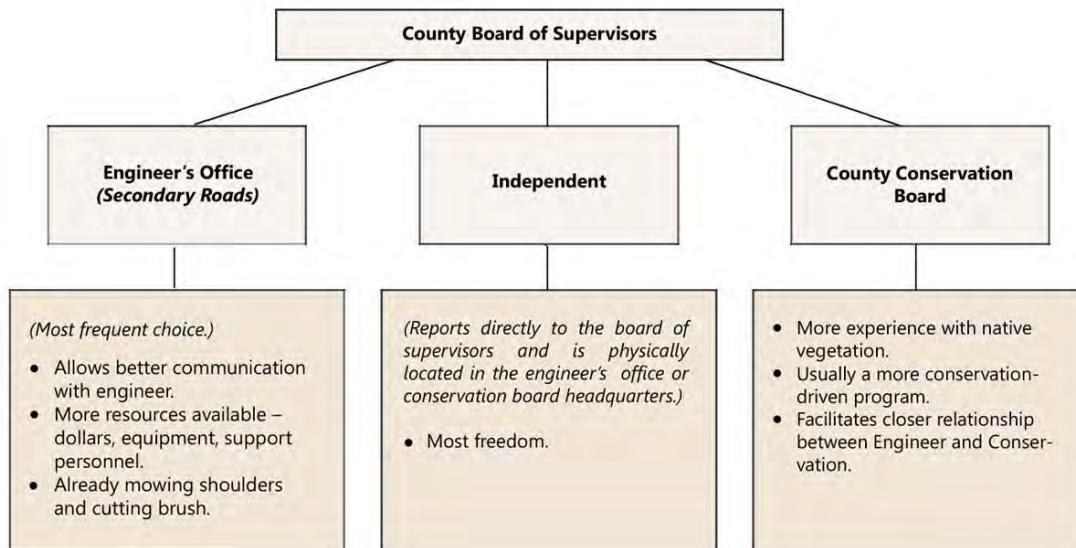
After a roadside manager is hired, the IRVM committee can become the IRVM steering committee, meeting with the new roadside manager monthly for the first year and quarterly thereafter. This committee sees that things are done as needed, supports the roadside manager's efforts and provides political support in times of need.

Hiring a Roadside Manager

Ideally the county will hire a roadside manager with wide-ranging knowledge and skills. The best candidates have a strong equipment background and good communications skills. Experience with natural resources and/or vegetation is an important bonus. Candidates must like a challenge and be willing to learn as they go. It's best to have the roadside manager onboard before developing the county's IRVM plan or conducting the roadside inventory. A generic position description (*Appendix 1b*) can be personalized to fit your county's situation.

IRVM Program Organization

When deciding where to locate the IRVM program and who should supervise the roadside manager, keep in mind that greater independence allows for better planning and timely operations. Sometimes reorganizing within a department or restructuring of departments is necessary to give roadside management personnel the autonomy to meet objectives. County programs operate successfully within the engineer's office, the county conservation board or as an independent department. All three have advantages.



Ideal Program Needs

Personnel

- Full-time vegetation specialist/roadside manager
- Full-time or 9-month roadside technician/assistant roadside manager
- Two seasonal employees

Equipment

- Tractor, 60 hp with dual rear axle
- 3/4-ton pickup, large enough for fire pumper unit
- Flatbed truck for herbicide spray rig
- Truck or trailer for hydroseeder
- 6-foot Truax native grass drill
- Spray rig with chemical injection and multi-control spray head
- Hydroseeder, 800-gallon or larger with mechanical agitation
- Broadcast seeder
- Straw mulch blower
- Cultipacker
- Boom mower
- Chainsaws
- Brush chipper

Taking Advantage of the Living Roadway Trust Fund

Since 1990, counties have enjoyed support from the Iowa Department of Transportation's [Living Roadway Trust Fund](#). Roadside managers submit applications each year to acquire resources for their program. The LRTF does not fund salaries, trucks or tractors. Beyond that, it's up to the county to be resourceful. While eligibility for this funding requires only that a county have an IRVM plan on file with the Iowa DOT, a county's commitment to IRVM is a factor when grant applications are reviewed. A full-time roadside manager on staff demonstrates strong commitment. Applications are due each year on June 1.

Examples of LRTF-funded items

- Roadside inventories
- Seeding equipment:
 - Native grass drills*
 - Hydroseeders*
 - Broadcast seeders*
- Discs, harrows, cultipackers
- Native seed
- Seed storage rooms
- Prescribed burn equipment:
 - Pumper units*
 - Backpack pumps*
 - Drip torch and hand tools*
 - Protective clothing*
- Public education
 - Workshops*
 - Signage*
- Training/Continuing ed
- GPS units
- Digital cameras
- Silt fences
- Straw mulch blowers
- UTVs
- Brush chippers
- Equipment sheds



Full or partial LRTF funding is available for items such as hydroseeders, ATV fire rigs, native seed and signage and wetland delineation training.

Program Responsibilities

- Seeding and hydromulching road and bridge projects and ditch cleanouts.
- Installing erosion control measures.
- Conducting prescribed burns in stands of native vegetation.
- Spot-spraying roadside weeds.
- Responding to weed complaints.
- Keeping records on herbicide use and roadside plantings.
- Writing grant applications for LRTF funding.
- Cutting trees and brush.
- Spraying small trees and brush.
- Maintaining equipment.
- Ordering supplies.
- Working one-on-one with landowners to reduce their impact on roadsides.
- Attending training and maintaining herbicide-applicator certification.
- Conducting stormwater inspections.
- Preparing wetland mitigation reports.
- Providing educational programs for the public.



Annual Operations

- Tree and brush control, depending on the method, can be done year-round.
- Ideally, seeding occurs in May/June and fall, but can be done whenever the ground is not frozen or snow-covered.
- Weed spraying is best in May, June and September but happens in the summer too.
- Prescribed burning is mostly in April and May, with some burning in late summer and fall.
- LRTF applications are due June 1.



Winter responsibilities

- Mapping and inventory.
- “Spare” truck driver (with CDL).
- Prepare reports and maintain records.
- Work with engineer on budget and propose equipment needs.
- Research equipment possibilities and draft concept statement for LRTF application.
- Write burn plans.



IRVM personnel brush cutting in the winter, attending burn training in the spring, leading a native vegetation field day in the summer.

Developing an IRVM Plan

The IRVM steering committee works with the roadside manager to develop the county's IRVM plan. The plan:

- Establishes clear expectations for the roadside manager.
- Sets annual and long-range goals and objectives.
- Provides overall guidelines for the way the program operates.

Developing a plan should be a priority as it is required to establish the county's eligibility for LRTF funding. The LRTF provides an IRVM plan outline, and posts approved county plans on its [website](#).

Conducting a Roadside Inventory

The most effective roadside management starts with accurate information about roadside conditions. Information collected in a roadside inventory includes herbaceous cover, tree and brush cover, weed concerns, bare areas and areas with erosion and encroachment. The inventory process typically involves a windshield survey of roadside conditions throughout the county, recorded every quarter mile, or as needed. The individual (or individuals) conducting the inventory must be able to identify weeds, distinguish native prairie vegetation from non-native grasses and recognize areas of erosion and encroachment. If more than one individual is conducting the inventory, a leader must provide training to ensure accurate, uniform data collection.

LRTF funds can be used to hire someone to do the inventory. The roadside manager and county engineer are included in planning and training so the collected data will be of maximum use to the county. Six to eight weeks are allowed for the process, ideally in late summer and fall since this is the easiest time to identify stands of native vegetation.

Inventories funded by the LRTF must be recorded on GPS devices. Software for collecting and recording roadside inventory information has been developed and is available free of charge from the LRTF. The LRTF also funds the purchase of GPS units, mapping software and laptop computers.

Inventory information helps set management priorities and provides baseline data for measuring program success.

Roadside Prairie Remnants

Every county in the state has a few roadsides containing small patches of native plants descended from the original prairie. Prairie remnants, as they are called, may possess just a few species of note or they may be quite diverse. Either way they provide a glimpse of the past and are valued as sources of genetic material and models for future prairie restoration. They all merit protection.

Look for prairie remnants where an old railroad right-of-way parallels the highway or where land may have been too rocky or too wet to till. A thorough survey of roadsides in your jurisdiction is the best way to document the location of remnants and prevent their destruction in the future. Generally, do not try to enhance a remnant by inter-seeding with native seed unless that seed comes from remnants in the immediate vicinity.

Comments

Starting an IRVM Program

When considering the establishment of a new IRVM program, consider: money spent in weed control, money spent in contract seeding, money spent contracting erosion control, money spent on erosion stone vs. best management practices. There's lots of money to be saved with an IRVM program. Make it about money! *Wes Gibbs, Jones County, 2010*

Depending on the size of a county's projects and how much spraying, contract seeding and maintenance is done, an IRVM program can save enough money to pay a roadside manager's salary each year. On top of that, the county does not have to deal with contracts and has more control over how things are done. *Wes Gibbs, Jones County, 2010*

Nowadays, creating a new position for a roadside manager might be difficult. So a realistic inventory of existing personnel is in order. Who has a green thumb? Who has the political savvy to survive? After appointing a roadside manager, an inventory of equipment and facilities is next. It's way easier to start a program if existing tractors, trucks, etc. can be used at first. When times get better, the program can grow. *Joe Kooiker, Story County, 2010*

I wouldn't over-publicize a new program. It can bring too much scrutiny and pressure. Hire or appoint a roadside manager and do some visible projects (seedings, erosion control, tree removal, etc.). Then promote the program through finished works. *Jeff Chase, Des Moines County, 2010*