“Resource Enhancement and Protection program (REAP): Invest in Iowa, our outdoors, our heritage, our people. REAP is supported by the state of Iowa, providing funding to public and private partners for natural and cultural resource projects, including water quality, wildlife habitat, soil conservation, parks, trails, historic preservation and more.”

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Volunteer Fire Departments Using Prescribed Fire

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Why Develop a Prescribed Fire Service?

There are many reasons why volunteer fire departments choose to make prescribed fire available to their communities as a service. Some advantages relate directly to the department itself – safety, fundraising, convenience and planning. Other benefits are specific to the natural resources in your area. Those who have already created prescribed fire services are the best sources of information as you develop your own service.

1. Safety

There are many reasons to consider developing a prescribed fire service for your community. First and foremost is safety. Creating your own burn service puts you – the fire department – in charge of when and where controlled burns are held. All departments have had the experience of being called out when a fire "escapes" from a well-intentioned but untrained landowner. By the time the fire department arrives, the fire may have caused considerable damage and may be threatening to burn structures or areas that weren't intended to burn. This may put both the landowner and firefighters in danger.

2. Raise funds for the department

Flipping pancakes and sponsoring community dances can be good fundraisers. But operating a burn service in your local community may be a better way to raise money for the department. For the past 10 years, the Smithland Volunteer Fire Department in Woodbury County has raised funds and awareness by planning and conducting prescribed fires as a service. While they still host other types of fundraising during the year, prescribed fire as evolved as their main source of outside revenue.

3. Convenience for your department

By establishing your own prescribed fire service, you control when and where fires are set. Your firefighters can schedule their time to assist with the fire, when possible. You will greatly reduce, if not eliminate, inconvenient calls to put out fires that well-intentioned but untrained landowners set on their own property.

4. Conserve natural resources

Persons trained in prescribed burning know when to burn to achieve their desired results. For instance, if the landowner's objective is to control unwanted trees and brush, spring and summer burns may be most effective. But if the goal is to improve wildlife habitat, the landowner and fire department can work together to determine the best time of year to burn. *(Detailed information about when to burn for specific objectives is discussed in greater detail in Chapter 2.)*

How Prescribed Fire Benefits Natural Resources

1. *Restores the ecosystem*

Fire was once a natural occurrence on Iowa's grasslands and forested areas. Tree ring samples show that fire occurred naturally in regular intervals. Historic accounts from early settlers and native inhabitants relate the presence of fire on the Iowa prairie. Much of the natural occurrence of fire was halted by settlers as they moved west. Fire was perceived as a threat to newly-built homes and communities, and to efforts to make a living from the land.

Prescribed burns are meant to mimic nature's historic pattern and bring balance back to the land. Well-planned and implemented burns can help to control the invasion of unwanted plant species. It encourages the growth of native plants and eliminates old, dead plant material that can accumulate over years.

2. *Creates biodiversity*

Fire was here long before we were. It has played a productive role in the natural systems of the Midwest for centuries, revitalizing the landscape.

Along with grazing animals like bison and elk, fire kept the tall-grass prairie in present-day Minnesota, Wisconsin, Iowa, Illinois, and Missouri healthy. It's estimated that, before European settlement, the prairie burned naturally every four or five years. Fire removed dead vegetation and returned nutrients to the soil, nurturing native grasses and wildflowers. It kept shrubs and trees from invading the open grasslands. Quite simply, it kept the prairie, prairie.

Where the prairie met the woodlands, oak savannas supported a variety of plants and wildlife. These open woodlands allowed sunlight to reach the ground, where prairie grasses and wildflowers flourished. They relied on periodic fires to keep their understory open. Fast-moving wildfires left the thick-barked oak trees unharmed.

3. *Benefits livestock production*

Making prescribed fire part of a pasture management strategy will create a high-functioning grazing system, bringing greater returns to the livestock operation.
Livestock grazing operations often experience increased weight gain, improved forage quantity and quality, better grazing distribution, and improved control of parasites and diseases.

Grass quality, palatability and availability are improved because fire removes dead plant material and improves access to new growth. After a fire, digestibility and protein content of ingested forage is higher. If soil moisture is adequate, grass yields increase after a fire because exposing and darkening the ground allows it to warm more quickly and stimulate early plant growth.

In addition some troublesome pests, such as ticks and disease-causing fungi, can be controlled by fire, even if only during the growing season after the fire.

4. *Enhances wildlife habitat*

Habitat requirements for wildlife species are highly variable. Fire may be beneficial or detrimental to wildlife habitat, depending on many factors such as timing, season and size of

the burn. In general, prescribed fire does not directly kill wildlife; animals usually escape by running or flying away, going below ground, or moving to unburned islands of vegetation.

A misconception exists among some that trees are necessary for wildlife habitat. This isn't necessarily so. Many wildlife species do not require trees and are adversely affected by their presence. For example, wildlife species that are native to prairie and shrubland vegetation do not require trees and in fact are precluded from their habitat if trees are allowed to invade or are planted. Fire can be an easy, inexpensive and natural tool for eliminating unwanted trees.

Popular game species such as bobwhite quail, white-tailed deer and wild turkeys require fire to maintain high-quality habitat. Some wetland habitats also benefit from periodic fire to maintain desirable conditions. Fire can improve forage quantity and quality. It also will reduce internal and external parasites on wildlife.

Conducting Prescribed Fire . . . An Overview

As your department begins to conduct prescribed burns, keep in mind that advanced planning is the Number 1 key to success. Other sections of this notebook go into detail about both the benefits of prescribed fire and steps leading up to a burn. This overview briefly covers the three components of all controlled burns – advance planning, preparation and evaluation.

Planning

- Define your objectives – why are you burning?
- Develop a prescribed burn plan & burn prescription *(A sample burn plan can be found in Chapter 6 of this guide.)*
  - Define unit to be burned.
  - Identify parties to be notified of the upcoming burn.
  - Prepare maps of burn site.
  - Define burn goals and objectives.
  - Define conditions necessary to accomplish objectives.
  - Explain equipment to be used.
  - Outline procedures to be followed.
  - Spell out contingency plan(s).
- Understand legal considerations.
- Understand situations that may pose special hazards such as roads, abandoned wells, power lines, junk piles, toxic substances, etc.
- Confirm mutual aid assistance with neighboring departments.

Prescribed Burn Checklist:

- √ **Complete prescribed burn plan**
- √ **Construct fire breaks**
- √ **Assemble equipment and trained crew**
- √ **Complete go/no-go checklist**
- √ **Conduct burn with constant supervision**
- √ **Secure perimeter of the burn**
- √ **Monitor until fire is completely out**

Preparation

- Train and inform crew of safety measures and proper prescribed fire management.
- Prepare equipment.
- Prepare fire breaks.
- Manipulate fuels if necessary.
- *Determine if weather conditions are within acceptable limits *(see chart below)*.

Evaluation

- Post-fire evaluation
  - Were the goals and objectives of the fire accomplished?
  - Was the fire conducted safely and according to plan?
- Refine the plan.
- Schedule the next burn.

Temperature	55° – 80°F	50° – 85°F
Cloud cover	Clear – 70% cover	
Ceiling	2,000 ft- unlimited	

Weather Factor	**Preferred Range**	**Limit**
Wind speed	5-15 mph	20 mph
Wind direction	Steady, from one direction	
Relative humidity	40-70%	>30%

* Determine if weather conditions are within acceptabl

e limits, both at the time of ignition as well as the forecast for the burn period. Burning outside of these ranges may be done if you have specific goals in mind and understand the hazards.

Safety First . . . Always!

Prescribed fire can be a valuable land management tool, but it carries inherent risks. Poorly managed burns or ignorance of safety measures can lead to property damage or even injury or death. Even in well-managed burns, accidents can occur. Before, during and after every burn, safety should be the primary concern.

Many of the following recommendations and guidelines are adapted from Iowa Prescribed Fire Guidelines *(August 2004 draft)*. The complete guidelines can be found on the Iowa Department of Natural Resources website: http://www.iowadnr.com/forestry/pdf/guidelines.pdf

Training Recommendations

Levels of training

In general, there are three levels of training for persons who want to conduct prescribed fire. Departments that are just introducing this service should consider having at least one or two members with the NWCG (National Wildfire Coordinating Group) level training, while other department members have a minimal level as explained below.

1. **Minimal basic prescribed fire and/or wildland fire trainings**
   These trainings are usually hosted by the state Department of Natural Resources (DNR) or a local conservation group or agency. They typically last no more than one day and may include a demonstration burn. The goal is to teach the basics of safe burning and to promote the use of burning for ecologically-important objectives.

   Iowa DNR has developed three eight-hour courses specifically for volunteer firemen and landowners:

   1) Basic Wildland Fire,
   2) Basic Engine Operation, and
   3) Iowa Prescribed Fire Class

   These courses can be scheduled for your area as long as enough people attend and DNR has sufficient lead time.

2. **College and university wildfire/prescribed fire trainings**
   This training can vary widely in intensity and time commitments. Institutions may offer NWCG courses and/or their own custom-built courses. In Iowa, prescribed fire courses are offered at Kirkwood Community College in Cedar Rapids, Iowa Western Community College in Council Bluffs, and Western Iowa Tech Community College in Sioux City. Other colleges and universities also may offer training. Check with them individually to learn about their course offerings.

3. **National Wildland Coordinating Group (NWCG) level training**
   The most intensive and time-consuming group of trainings, this is geared toward wildfire suppression, not necessarily prescribed burning as a management practice.

   a. s130/190 is a course for beginners that requires 40 hours of coursework. Passing an optional pack test qualifies persons for a red card which makes them eligible as an entry-level wildland firefighter with federal agencies. Once a firefighter earns a red card by taking the s130/190 course and passing a pack test, they must attend yearly one-day refresher courses to maintain their red card.

   b. “Crosswalk” is a new group of trainings designed by FEMA to provide critical wildland fire training to structural firefighters who already have structural fire

training (e.g. Firefighter 1). Various levels of training are available through Crosswalk. For example, taking the relevant Crosswalk for Firefighter 1 would provide training equivalent to s130/190. Contact DNR for more information.

State guidelines

State of Iowa Prescribed Fire Guidelines strongly recommend that NWCG standards be followed for prescribed fires in Iowa. Their website is included in the reference section of this document. The NWCG defines a large variety of positions within an "incident command system" for firefighting situations. They compose task books and coursework to train individuals interested in being certified for the various positions.

Iowa guidelines state that it is preferable to have highly trained firefighters working on a prescribed fire, for both safety and liability reasons. For non-complex, low-risk prescribed fire, it is recommended that the burn boss be ranked as a Burn Boss 3 (RxB3, a position created by the USFWS for low complexity burns) or at least have completed the required coursework. For more complex prescribed fires, the burn boss should have completed both the coursework and the task book for Burn Boss accreditation (NWCG RxB1 or RxB2, or USFWS RxB3). Complex prescribed fires should also have squad bosses who have completed the NWCG Fire Fighter Type 1 training, or NWCG s130/s190 (Basic Wildland Firefighting/Introduction to Wildland Fire Behavior), 131 (Advanced Firefighter Training), and s290 (Intermediate Wildland Fire Behavior). Crew firefighters on both simple and complex prescribed fires should have completed NWCG s130/s190 or be paired with someone who has completed those courses.

It should be noted that most federal agencies require more stringent levels of accreditation for their fire crews. Partnering with these agencies to increase the amount of fire management done in Iowa may require RxB2 or RxB1 certification for burn bosses.

There are refresher courses for some NWCG levels. To maintain a red card, individuals need to have completed the s130/s190 courses (once), pass at least a moderate level pack test (carry 25 pounds two miles in 30 minutes), and attend a yearly one-day refresher course. Refresher courses for other NWCG positions vary. In some cases refresher courses are not offered; certification is maintained by performing in the credentialed capacity (or higher) on a fire assignment at least once per year.

Equipment Recommendations

Personal Protective Equipment

It is recommended that all fire personnel wear Nomex clothing (shirt and pants), high-top leather boots, leather gloves, fire-rated hardhat, eye/ear protection, and all underclothing be of natural fiber. Nylon and polyester clothing MUST be avoided as they can melt and cause severe burns. Roadside visibility materials are essential if the fire is near a roadway.

Ideally, personnel also should carry a fire shelter (for protection from flames and superheated gasses in the event of entrapment) and fussees (as a means to light a separate fire in order to burn out a safety zone ahead of the threatening fire front). A fussee should not be considered an alternative to a fire shelter; in some conditions a fire shelter will be critically needed but a fussee will be useless.

Recommended Tools

The tools needed for a safe prescribed fire will vary with each fire and should be specified in the burn plan. A drip torch, pre-tested 2-way radios, cell phone, flappers, rakes, backpack pumps, weather kit, and a first aid kit will be needed for most fires. Additional commonly used items include a stop/go paddle if the fire is near a roadway, chain saws, mechanized water transport, leaf blower, and a portable fire weather radio.

Other Safety Recommendations

- Those assisting with the burn must be familiar with basic prescribed burning and fire fighting techniques.
- Personnel with known health conditions such as high blood pressure, heart conditions and respiratory diseases must not participate.
- Make sure that all of the fire equipment is in good working condition and that those using the gear are familiar with its use.
- Notify neighbors, 911 dispatcher and local law officials of your plans to burn.
- Prior to ignition, review burn plan with the crew, designate individual responsibilities, and brief everyone on communication procedures for notifying emergency personnel.
- Plan for easy communication with burn crew members. Use two-way radios or cell phones.
- Be aware of possible emergency situations.
- Observe any changes in the weather and stay updated on forecasts.

Essential Components of a Burn Plan

A prescribed burn is a carefully planned and executed event. Long before a match is struck, crew members complete a site-specific Prescribed Burn Plan, outlining the tracts of land to be managed. Managers carefully determine weather conditions that will help control the flames while still allowing an effective burn. Air temperature, humidity, wind speed and direction, and vegetation moisture all need to be monitored and kept "within prescription" when burning.

On the day of the burn, local emergency personnel and residents next to the burn site are notified. Equipment and trained personnel are assembled at the site. After confirming that weather conditions meet the requirements, the "burn boss," an experienced fire manager, gives the okay and oversees the burn. The burn is monitored constantly. Flames are carefully extinguished before the crew leaves the site.

Because of the large degree of variation in the complexity of prescribed burns, there are no standardized burn plans. A burn plan can be short or long, depending on the complexity of the proposed burn and the desires of the burn boss.

All burn plans should include the following sections:

1. Site information
2. Burn site specific information
3. Objectives & goals
4. Site preparation
5. Organization: personnel & equipment
6. Prescription: weather, fire behavior, smoke management
7. Ignition & holding plan (with map)
8. Contingency plan (wildfire response plan)
9. Mop-up
10. Post-burn evaluation

For each section below, there are numerous sub-headings that may or may not be included in a specific burn plan. Whether or not a sub-heading is included in a specific burn plan is determined by the site and the preferences of the burn boss. Each section and potential headings are discussed below.

1. Site Information

This section contains contact information for the site to be burned.

Potential headings:

a. Owner name, home phone & cell phone
b. Property name & address
c. Location
    - Section
    - Township
    - Range
    - 911 address
    - GPS coordinates
d. Contact information
    - Local dispatch center
    - Fire department
    - Public Safety Communication Center
    - Medical emergency
    - Other
e. Courtesy notifications to neighbors & organizations

2. Burn Site - Specific Information

This section includes information specific to the burn being planned.

Potential headings:

a. Range of target dates
b. Permits needed (check all appropriate)
    - ☐ Air quality
    - ☐ City ordinance
    - ☐ Fire chief
    - ☐ None
c. Estimated size of burn
d. Description of burn site
    - Attach drawing or photo of site, indicate N and other pertinent landmarks
    - Overstory (percent canopy, basal area, height)
    - Understory (percent, height)
        - Warm season grasses
        - Cool season grasses
        - Forbs
        - Shrubs or brush
    - Fuel type
    - Site topography (slope, aspect, etc.)
    - Area of contiguous fuels
    - Firebreaks present (indicate on map)
    - Backup firebreaks present (indicate on map)
    - Closest water source (type and distance)
    - Other water source(s)
e. Previous burn management (dates, results, wildfire or prescribed, etc.)
f. Description of adjacent area (if significantly different in fuels, topography, etc.)
g. Special considerations (flora, fauna, safety, public not in agreement, etc.)
h. Smoke-sensitive areas within 3 miles (people with asthma, buildings, roads)

i. Hazards (power lines, gas lines, wells, etc.)

3. Objectives & Goals

This section contains information about the reason(s) the burn is being planned.

Potential headings:

a. Management objective
   - Wildland Urban Interface (WUI) considerations (hazardous fuel reduction)
   - Hazard reduction
   - Ecological
   - Training

b. Resource objective (be specific, for example "increase forb component by 20%"):
   - Stimulate warm season grass
   - Stimulate cool season grass
   - Reduce cool season grass
   - Stimulate forbs
   - Manipulate grazing
   - Control invasive plants
   - Improve habitat
   - Remove litter

4. Site Preparation

This section details work that needs to be done prior to the planned burn.

Potential headings:

a. Firebreaks needed
   - Type (dozer line, hand line, mowed, other)
   - Length
   - Width

b. Identification and location of natural firebreaks
   - Roads
   - Crop fields
   - Waterways (note material composition and width)

5. Organization – Personnel Equipment

This section outlines the organizational and equipment needs of the planned burn.

Potential headings:

a. Firing crew
b. Holding crew
c. Traffic control crew
d. Equipment
e. Other

6. Prescription

This section covers data to be collected immediately before ignition of the planned burn. Some items must fall within a previously determined range or the burn will be cancelled.

Weather*:* acceptable burning parameters (indicate minimum/maximum or circle all appropriate)

- Type of firing method
  - Backing, flank, ring, strip head, head
- Allowable rate of spread (specify ft./min. or chains/hr.)
- Allowable flame length (feet)
- Allowable mid-flame wind speed (mph)
- Allowable wind direction
  - N, NE, E, SE, S, SW, W, NW
- Relative humidity (percent)
- Temperature (Fahrenheit)
- Time of year
  - Spring
  - Summer
  - Dormant
- Fuel Moisture
  - 4-8 , 1-hr. , TLF3 7-12 , 10-hr. TLFM (fuel sticks)
- Days since last rain

Fire behavior

What makes some fires burn so hot and others not? What makes fires spread fast one day and slow on another day? A fire behaves according to the environment in which it is burning. This environment consists of various elements of fuels, topography and weather. These elements and their reactions with one another - and the fire itself - determine the behavior of the fire.

Smoke management

Visibility is a major consideration in smoke management. Your planning for prescribed fire must include the potential for hazardous situations, including impaired visibility created by smoke both on and off our lands.

7. Ignition & holding plan with map

This section contains the protocol to be followed immediately before ignition of the burn. Some headings are to be filled in at that time.

Potential headings:

a. Map of burn site (may be included w/site description)

Pre-Burn Contacts	**When**	**Who Will Do Contact?**
Weather service	Day before	

Fire departments	Day before	
Conservation officer	Day before	
County sheriff	Day before	
County health department	Day before	
Local residents	ASAP and day before	
Burn Day Contacts	**When**	**Who Will Do Contact?**
Weather service	Morning of burn	
All cooperators	Morning of burn	
Local residents	Morning of burn	
Fire headquarters	Morning of burn	

b. Weather data *(circle source)*
   - NOAA
   - Internet media (specify)
   - NWS
   - Other (specify)

c. Other weather data details *(On-site weather data collection is needed before and during a burn.)*
   - Sky
   - Precipitation
   - Cold fronts
   - LASI
   - Wind direction
   - Highest temperature
   - Lowest relative humidity
   - Atmospheric stability
   - Wind speed
   - Mixing height

d. Firing technique: this is often not decided until the day of the burn

Go – No-Go List		
If all 13 Go – No-Go questions are answered "Yes," you may proceed with the test fire.		
Yes	**No**	**Question**
		1. Are all fire prescription specifications met?
		2. Is the weather forecast favorable now and throughout the burn?
		3. Are all necessary fire breaks constructed and checked?
		4. Are all personnel required in the plan on-site?
		5. Have all personnel been briefed on the prescribed burn plan?
		6. Have all personnel been briefed on safety hazards, escape routes and safety zones?
		7. Do all personnel have the required PPE with them?
		8. Is all required equipment in place and in working order?
		9. Do you have needed direct communications established?
		10. Do you have access to adequate water?
		11. Do you have all keys and gate access?
		12. Have you made all notifications?
		13. In your opinion, can the burn be carried out according to the plan and will it meet the planned resource management objectives?

8. Contingency Plan: Wildfire Response Plan

This is the back-up plan in case the fire does not go as planned or if it escapes. A contingency plan should be in place and ready to use should a controlled fire escape.

9. Mop-up

Mop-up is the process of checking the entire perimeter of the burn area to ensure all fires or smoldering materials are out. This could include cow chips, logs, dead trees and small areas sill burning.

10. Post-burn evaluation

a. Operational data
b. Weather data after burn
c. Vegetation status after burn (Pre- and post-burn photographs are both ideal and simple to collect, and can be compared to photos taken months later.)
d. Prescribed fire summary
e. Recommendations for future management

The Best Times to Burn for Specific Objectives

The timing of your prescribed burn is crucial to chances for success. Following are many of the most common reasons to conduct controlled fire, and the best times to schedule the burn to achieve specific objectives.

Tree and brush control

- Late spring and summer fires work best. Fall burns are not as effective.
- Repeated fires over the course of several years are needed to control re-sprouting of brush.
- Combine fire with mechanical removal for maximum effect.

Maintenance of native plant communities

- Late spring fires encourage warm season native grasses.
- Summer and fall fires encourage native wildflowers.

Improvement of wildlife habitat

- It may be necessary to vary burning practices to improve habitat. Early spring, late spring, summer and fall fires all affect wildlife habitat differently. Varying fire treatments from year to year will maximize wildlife habitat and food availability.

Eradication of Eastern Red Cedar

- Fall or spring fires provide the best control because Eastern Red Cedar foliage is drier and more flammable after the fall freeze and before spring growth begins.
- Use of the warmest, driest conditions consistent with safety and fire control will improve effectiveness. This is especially important in grazed pastures where fuel loads are low.

Sumac control

- Cut repeatedly in July or August.
- Fire alone is ineffective because while aerial stems may be top-killed, the plant will re-sprout from root buds. However, fire can reduce canopy height and ease herbicide application. Summer fires have the greatest impact on reducing sumac canopy.

Leafy spurge control

- Burning actually stimulates growth.
- Apply chemicals or introduce beetles for best control. Fire application after releasing beetles is beneficial. To avoid damage to the beetle population, avoid burning in late spring or early summer. August through March or April are good times to burn.
- Uniform regrowth after a fire may allow easier herbicide control.

Sweet clover control

- Reacts best to back-to-back burns. A first burn in fall or spring causes an increase in seed germination. Following the first burn with a second in late spring of the following year prevents flowering in that second year.

Musk thistle control

- Burn as late as possible in the spring to control flowering.

Canada thistle control

- Late spring burns in May-June are most effective.
- Early spring burns can increase sprouting and reproduction.
- Thistles may increase the first year following a May burn but will decline with two growing seasons. Immediate reductions in thistles occur following a June burn.
- Burn every year for three years.

Smooth brome control

- Burn at time of tiller elongation to reduce tiller density and biomass. This is typically late spring, (early May).

Reed canary grass control

- Burn in late fall or early spring for five to six consecutive years.
- Burning during growing season may reduce vigor and help control spread.

Kentucky bluegrass control

- Burn in late spring.

Crown vetch control

- Late spring burns control seedlings, but adult plants will re-sprout.
- Follow burning with herbicide treatment on regrowth.

Where to Go for More Information

Planning resources

- Tall Timbers Fire Ecology Database: http://www.talltimbers.org/research/fireeco.htm
- NFDRS: http://www.fs.fed.us/raws/standards.shtml
- ICS forms: http://www.nwcg.gov/pms/forms/icsforms.htm
- Florida Division of Forestry: http://www.fl-dof.com/wildfire/index.html
- Riverside Fire Lab: http://www.fs.fed.us/psw/rfl/
- National Climate Data Center: http://lwf.ncdc.noaa.gov/oa/ncdc.html
- NPS fire monitoring handbook: http://www.nps.gov/fire/fire/fir_eco_mon_fmh.cfm
- Fire Effects Information System: http://www.fs.fed.us/database/feis/
- Fire Behavior Prediction programs: www.fire.org

Weather resources

- Weather Underground: http://www.wunderground.com/
- Accuweather: http://www.accuweather.com
- Lightning detection: http://www.lightningstorm.com
- Satellite images of the Plains: http://www.osei.noaa.gov/Events/Fires/US_Plains/
- FS Wildfire Assessment System: http://www.wfas.net/
- Drought Monitor: http://drought.unl.edu/dm/

Other helpful sites

- National Wildfire Coordinating Group: http://www.nwcg.gov/
- Wildland Fire: http://www.wildlandfire.com/
- Cerro Grande Report:
  http://www.nps.gov/cerrogrande/Board_report-feb26final.pdf
- GeoMAC Wildland Fire Support: http://geomac.usgs.gov/
- The Nature Conservancy Fire Management: www.tncfire.org
- National Interagency Prescribed Fire Training Center: http://fire.r9.fws.gov/pftc
- USFWS/Bureau Indian Affairs fire training: http://fire.fws.gov/fm/training.htm
- USFWS Prescribed Fire Burn Boss 3 (RxB3) task book:
  http://fire.fws.gov/fm/docs/RXB3_PTB.pdf
- National Interagency Fire Center: www.nifc.gov
- Tall Timbers: http://www.ttrs.org

Sample burn plans

- Iowa NRCS: ftp://ftp-fc.sc.egov.usda.gov/IA/news/PrescribedBurning.pdf___ *(See Chapter 5 in this binder.)*
- Missouri NRCS:
  http://www.mo.nrcs.usda.gov/technical/forms/out/agronomy/JSAgron18rev10_06.pdf

- TNC and USFWS: http://prrcd.org/inl/TNC%20burn%20plan.pdf

Working with Landowners

Many approaches have been tried to increase the number of acres in Iowa that benefit from prescribed burning. A very successful method has been using volunteer fire departments to promote and conduct controlled fires in their area. As your department begins a prescribed fire service, you'll want to discuss how you plan to work with landowners – how to reach them and explain what you're doing, preparing the burn plan with their assistance, presenting cost-share information to them, etc.

The volunteer firefighters from Smithland will discuss all of these topics and more as you begin to develop your prescribed fire service. Please use these pages to note points of interest and any tips you think will help you along the way.

Finding landowners (most will find you!)

Conservation-minded landowners may already have an interest in using fire as one of the management tools on their land, but they might not know how to go about getting the project started. If you've done a good job spreading the word about your prescribed fire service, and if conservation agencies in your area are aware of your services, many landowners will seek you out. But it will be important that you take a proactive approach to publicizing your service and partnering with local groups and agencies to help promote it. *(A sample press release and radio announcements are included in Chapter 5 of this binder.)*

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Landowner participation and liability

Expect that one of the first questions that arises in talking with landowners about prescribed fire is “who’s responsible in case something goes wrong?” Work with landowners to understand their liability when conducting a burn, as well as what their role will be the day of the burn. They may want to take an active role in the project, or they might prefer to leave it all up to you, the professionals.

Allowing sufficient time for planning & notifications

You know how long it takes to plan a fire and make all the necessary notifications to neighbors, law enforcement, and others. But landowners aren’t going to be as aware of the time needed. It’s to your benefit to make it very clear to landowners from the start that planning fire takes time, and there are steps that must be taken to do it right.

Costs & cost-share options for the landowner

Local and state cost-share options are often available to landowners to help pay for a prescribed burn. You'll do them a valuable service by making them aware of available financing opportunities, if any.

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Prescribed Fire as a Service . . . the Details

Starting a new service always takes time, and you can expect a few “bugs” along the way. This chapter may help as you prepare to do more burning in your area and develop your own prescribed fire service.

Getting started

Training requirements

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Necessary equipment & personnel

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Insurance

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Mutual aid agreements

Promoting and charging for your prescribed fire service

Grant funding

How does Smithland do it?

The volunteer firefighters from the Smithland Fire Department have been conducting prescribed fires as a service for many years. Their experience can be helpful as you work toward your own service. Here they share how they operate their service and offer suggestions for departments that are just getting started.

Scout the property.

What do you need for personnel, equipment, control lines, etc.?

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Prepare the burn plan.

Keep it simple so everyone is on the same page.

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Wait for conditions.

Be patient and wait for the right conditions for the burn, specifically wind, temperature and humidity. Also, do you have the right equipment, personnel, and other necessities lined up?

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Execute the burn.

Promoting Your Prescribed Fire Service

It's crucial that you promote the fact that your department is trained and ready to plan and conduct prescribed fire. This section contains reproducible documents to help you spread the word – press releases, radio scripts, and other suggestions for promotion.

1. Sample press release explaining new prescribed fire service
2. Sample radio spots promoting prescribed fire services
3.
4.

** For Immediate Release **

Sample Press Release

Date:
Contact name:
Contact phone or e-mail:

Contact Local Fire Department To Plan & Conduct Prescribed Fires

The term "prescribed fire" may be new to some, but the concept is as old as the hills. Members of the *(insert your department name)* Volunteer Fire Department recently completed training to help area residents plan and conduct prescribed, or controlled burns, on their property.

A prescribed fire is one that is deliberately planned and set to accomplish a specific goal. In most cases, those goals are related to weed control, controlling unwanted trees or shrubs, and enhancing wildlife habitat.

Before settlers came to the area, Iowa's prairies were regularly burned by fires set by lightning or by Native Americans who understood fire's benefits. But settlers often saw fire as a threat to their attempts to develop homes and businesses.

In recent years, however, many conservation-minded individuals and agencies are again realizing the many benefits that fire brings to the land. That's why the *(insert department name)* has trained to work with landowners to plan and conduct prescribed fires.

Members of the fire department will work directly with landowners to talk about what land they might want burned, their reasons for burning, and the steps involved before a burn can be done. The department will prepare a burn plan and help landowners to notify their neighbors and law enforcement officials when a burn is scheduled. If all conditions are right on the scheduled day, the department will ignite the prescribed fire and stay with it until it is completely extinguished.

The fire department decided to provide this service to our community for several reasons, most importantly to help landowners who want to burn but don't have the necessary equipment or expertise, and to encourage others to see the benefits of controlled fires. The department's prescribed fire service also will help raise funds for equipment purchases and normal operating expenses.

Anyone interested in learning more about the *(insert name here)* department's new prescribed fire service is encouraged to contact Chief *(insert name & contact information)*.

-30

Sample Radio Scripts for Volunteer Fire Departments Using Prescribed Fire

Sample Radio Scripts

15-second spots (50-55 words):

Do you need to burn off that weedy back pasture or get rid of unwanted Red Cedar trees, but don't know where to start? Get in touch with the *(insert name)* Volunteer Fire Department. We're trained and ready to help you plan and conduct a controlled, prescribed fire on your land. Call *(insert contact information here)* to get started.

OR

The *(insert name)* Fire Department wants to start a fire! Rather than be called out to put out an escaped fire, our local firefighters are trained and ready to plan and conduct controlled, prescribed fire on land in our area. Prescribed fire not only helps you control unwanted weeds, trees and shrubs, but it's a great way to improve wildlife habitat. To learn more, just call *(insert contact information here)*.

30-second spots (90-95 words):

The *(insert name)* Fire Department wants to start a fire! Rather than be called out to put out an escaped fire, our local firefighters are trained and ready to plan and conduct controlled, prescribed fire on land in our area. Volunteers from our fire department will talk with you about preparing a prescribed fire and conducting it safely. Fire can be used to control unwanted weeds, trees and shrubs. It's also a great way to improve wildlife habitat. To learn more, just call *(insert contact information here)*. He'll be glad to meet with you to talk about how prescribed fire can help you and your land.