

Colorado House Bill 00-1283<sup>1</sup> “declares that the use of fire is an effective and appropriate resource management tool. The general assembly further finds and declares that it (Prescribed Burning) is necessary and desirable to improve the health of Colorado's forest, rangeland, and prairie ecosystems and to mitigate the fire danger in the wild-urban interface.” The house bill also states that the legislation is intended “to foster better cooperation between private land owners and local, state and federal government agencies in the establishment of fire management strategies and policies.”

Though state statutes support the use of Prescribed Burning<sup>2</sup>, direction for implementation is not clear. Currently, Colorado state statutes provide guidance for prescribed burns solely in agricultural<sup>3</sup> settings. The following "Colorado Prescribed Burning Act" is an attempt to clarify conflicting state statutes and legislation and provide clear direction for prescribed fire on private land by establishing a state wide Prescribed Burning Act<sup>4</sup>. This Prescribed Burning Act will provide the following:

1. Clear definition of how and when a landowner can have a prescribed fire on their property.
2. Structure for legal prescribed burn operations.
3. Oversight of Prescribed Burning qualifications and operations.
4. Established liabilities, liability exemptions and penalties for prescribed burn personnel and landowners.

---

<sup>1</sup> Colorado House Bill 00-1283, House of Representatives 2000

<sup>2</sup> The following Colorado Revised Statutes make reference to prescribed fire: §13-21-105 (b) (II), C.R.S. 2002; §18-13-109 (2) (b) (III), C.R.S. 2002; §18-13-109.5, C.R.S. 2002; §24-33-203, C.R.S. 2002; §24-33-204, C.R.S. 2002; §30-10-513.5 (a), C.R.S. 2000 and §30-11-124 (1) and (2) (b), C.R.S. 2000.

<sup>3</sup> Definition of agricultural: Regulation Number 9 (II) (A), Air Quality Control Commission, Department of Public Health and Environment 2007 and §39-1-102 (1.6), C.R.S. 2008

<sup>4</sup> Battye, Rebecca. etal. 1999. Features of Prescribed fire and smoke Management Rules for Western and Southern States. EC/R Incorporated, for US Environmental Protection Agency.

## Colorado Prescribed Burning Act

### (1) LEGISLATIVE FINDINGS

(a) The Legislature hereby declares and finds that the application of Prescribed Burning is a Landowner property right and a land management tool that benefits the safety of the public, the environment, the natural resources and the economy of Colorado. The Legislature finds that:

1. Prescribed Burning reduces vegetative fuels within wildland areas. Reduction of the fuel load reduces the risk and severity of wildfire, thereby reducing the threat of loss of life and property, particularly in wildland urban interface areas<sup>5</sup>.
2. Most of Colorado's natural communities require periodic fire for maintenance of their ecological integrity. Prescribed Burning is essential to the perpetuation, restoration, and management of many plant and animal communities. Significant loss of the state's biological diversity will occur if fire is excluded from fire-dependent ecosystems<sup>6</sup>.

---

<sup>5</sup> Agee, J. K., and C. N. Skinner. 2005. Basic principles of forest fuel reduction treatments. *Forest Ecology and Management* 211:83-96.

Biswell, H.H. 1960. Danger of wildfire reduced by prescribed burning in ponderosa pine. *California Agriculture* 1410: 5-6.

Fernandes, P. and Botelho, H. 2003. A review of prescribed burning effectiveness in fire hazard reduction. *International Journal of wildland fire* 12:117-128.

Finney, M.A., Bartlette, R., Bradshaw L., Close, K., Collins, B.M., Gleason, P., Hao, W.M., Langowski, P., McGinely, J., McHugh, C.W., Martinson, E., Omi, P.N., Shepperd W., and Zeller, K. 2003. Fire behavior, fuel treatments, and fire suppression on the Hayman Fire. In Graham, Russell T. Tech. Ed. Hayman Fire Case Study. Gen. Tech. Rep. RMRS-GTR-114. Ogden, UT, U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 33-180.

Graham, Russell, T. et al. 2004. Science basis for changing forest structure to modify wildfire behavior and severity. Gen. Tech. Rep. RMRS-GTR-120.

Helms, J.A. 1979. Positive effects of prescribed burning on wildfire intensities. *Fire Management Notes* 403: 10-13.

Pollet, J. and Omi, P.N. 2002. Effect of thinning and prescribed burning on crown fire severity in ponderosa pine forests. *International Journal of Wildland Fire* 11: 1-10.

Stephens, S. L., and J. J. Moghaddas. 2005. Experimental fuel treatment impacts on forest structure, potential fire behavior, and predicted tree mortality in a California mixed conifer forest. *Forest Ecology and Management* 215:21-36.

<sup>6</sup> Brown, James K.; Smith, Jane Kapler, eds. 2000. *Wildland fire in ecosystems: effects of fire on flora*. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.

Friederici, Peter. Editor. 2003. *Ecological Restoration of Southwestern Ponderosa Pine Forests*. Society of Ecological Restoration. Ecological Restoration Institute. Island Press.

3. Forestland and rangeland constitute significant economic, biological, and aesthetic resources of statewide importance. Prescribed Burning on forestland prepares sites for reforestation, removes undesirable competing vegetation, expedites nutrient cycling, and controls or eliminates certain forest pathogens. On rangeland, Prescribed Burning improves the quality and quantity of herbaceous vegetation necessary for livestock production<sup>7</sup>.
4. The state, counties and municipalities throughout Colorado, manage 3,584,445 acres of land for parks, preserves, wildlife management areas, forests, and other public purposes. The use of Prescribed Burning for management of public lands is essential to maintain the specific resource values for which these lands were acquired<sup>8</sup>.
5. A public education program is necessary to make citizens and visitors aware of the public safety, resource, and economic benefits of prescribed burning<sup>9</sup>.
6. Proper training in the use of Prescribed Burning is necessary to ensure maximum benefit to, and protection of the public<sup>10</sup>.
7. As Colorado's population continues to grow, the potential for unrestricted liability and nuisance complaints related to Prescribed Burning may inhibit proper wildland management<sup>11</sup>.

---

Keane, Robert, E, et al. 2002. Cascading effects of fire exclusion in Rocky Mountain ecosystems: A Literature Review. Gen. Tech. Rep. RMRS-GTR-91. US Forest Service.

<sup>7</sup> Abella, Scott, R. 2008. Managing Gambel oak in southwestern ponderosa pine forests: The Status of the Knowledge. Gen. Tech. Rep. RMRS-GTR-218.

Brown, James K.; Smith, Jane Kapler, eds. 2000. Wildland fire in ecosystems: effects of fire on flora. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.

Harrington, M.G. 1989. Gambel oak root carbohydrate response to spring, summer, and fall prescribed burning. *Journal of Range Management*. 42:504-507.

Weaver, H. 1957. Effects of prescribed burning in ponderosa pine. *J. For.* 55:133-137.

<sup>8</sup> Brown, James K.; Smith, Jane Kapler, eds. 2000. Wildland fire in ecosystems: effects of fire on flora. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.

Friederici, Peter. Editor. 2003. Ecological Restoration of Southwestern Ponderosa Pine Forests. Society of Ecological Restoration. Ecological Restoration Institute. Island Press.

Keane, Robert, E, et al. 2002. Cascading effects of fire exclusion in Rocky Mountain ecosystems: A Literature Review. Gen. Tech. Rep. RMRS-GTR-91. US Forest Service.

<sup>9</sup> Taylor, Jonathan, G.; Daniel, Terry,. 1984. Prescribed Fire: Public education and perception. *Journal of Forestry*. Volume 82, Number 6. Society of American Foresters

<sup>10</sup> Gass, Tobah, M. 2008. Reducing Barriers to Use of Prescribed Fire in Privately Owned Forests. Colorado Forest Restoration Institute, Colorado state University, Colorado State Forest Service.

<sup>11</sup> Gass, Tobah, M. 2008. Reducing Barriers to Use of Prescribed Fire in Privately Owned Forests. Colorado Forest Restoration Institute, Colorado state University, Colorado State Forest Service.

8. Unprecedented beetle infestation is killing vast numbers of trees in Colorado, resulting in an increased threat of wildfire and an increased need for fire mitigation and forest management. Therefore, the State Forest Service is urged to maximize the opportunities for Prescribed Burning<sup>12</sup>.

(b) The purpose of this article is to authorize and promote the continued use of Prescribed Burning for ecological, silvicultural, wildlife mitigation and wildlife management purposes.

**(2) DEFINITIONS**--As used in this section, the term:

(a) "Broadcast Burn" is the controlled application of fire to wildland fuels in their natural or modified state over a predetermined area. Broadcast Burns do not include the burning of wildland fuels that have been concentrated in Piles by manual or mechanical methods.

(b) "Certified Prescribed Burn Manager" means an individual who successfully completes the certification program of the State Forest Service and possesses a valid certification number.

(c) "Control" is preventing fires spread so that it does not pose a threat to neighbors land or structures.

(e) "Escape" means a fire has burned more area that intended and is a threat to neighbors land or structures.

(f) "Extinguished" means that no visible flame, smoke, or emissions exists.

(g) "Landowner" is anyone who owns land or is the designated land manager of lands owned by the public.

(h) "Pile Burning" is the burning of vegetative material that has been concentrated by manual or mechanical methods.

(i) "Prescribed Burner" means the individual who is in charge of setting fire to the wildland fuels in order to accomplish a planned fire or land-management objectives.

(j) "Prescribed Burning" means the controlled application of fire in accordance with a written plan for wildland fuels under specified environmental conditions while following appropriate precautionary measures that ensure that the fire is confined to a predetermined area to accomplish the planned fire or land-management objectives.

---

<sup>12</sup> 2006 Report on Health of Colorado Forests. 2007. Colorado Department of natural Resources – State Forest Service of Forestry.

Romme, William, H. et al. 2006. Recent Forest Insect Outbreaks and Fire Risk in Colorado Forests: A brief Synthesis of Relevant Research. Colorado Forest Restoration Institute, Colorado state University, Colorado State Forest Service, University of Idaho.

(k) "Prescription" means a written plan establishing the criteria necessary for starting, controlling, and extinguishing a prescribed burn.

(l) "State Forest Service" is the Colorado State Forest Service.

(m) "Wildland Urban Interface" means the line, area, or zone where structures and other human development meet or intermingle with undeveloped vegetative fuels, and where there are structures at risk.

### **(3) RULES AND GUIDELINES; FEES FOR CERTIFICATION OR TRAINING**

(a) The State Forest Service may promulgate rules for the certification of prescribed burn managers and guidelines for a prescribed burn prescription.

(b) The State Forest Service may charge and collect fees and other payments from persons applying for certification or training as a Certified Prescribed Burn Manager and to carry out other administrative aspects of this article.

### **OPEN BURNING AUTHORIZED**

Persons may be authorized to perform Broadcast or Pile Burns under certain conditions. Burns may be conducted under two categories.

### **(4) NONCERTIFIED BURNING**

(a) Nothing in this article shall be construed as requiring certification as a Certified Prescribed Burn Manager in order to conduct burning operations on one's own property or on the lands of another with the Landowner's permission as long as this subsection is complied with.

(b) Persons may be authorized to burn Broadcast or Piles in accordance with this subsection if:

1. There is specific consent of the Landowner or his or her designee; AND
2. Authorization has been obtained from the State Forest Service or its designated agent before starting the burn; AND
3. There are adequate firebreaks at the burn site and sufficient personnel and firefighting equipment for the Control of the fire; AND
4. The fire remains within the boundary of the authorized area; AND
5. Someone is present at the burn site until the fire is Extinguished; AND

6. The State Forest Service or its designated agent does not cancel the authorization; AND
7. The State Forest Service or its designated agent determines that the fire danger is favorable for safe burning; AND
8. The Prescribed Burner acquires valid Colorado Air Pollution Control Division (CAPCD) or local smoke permits if required.

(c) A person who burns Broadcast or Piles in a manner that violates any requirement of this subsection commits a misdemeanor of the second degree, punishable as provided in \*\*\*\*\*.

#### **(5) CERTIFIED PRESCRIBED BURNING**

(a) No property owner or his agent, conducting a Prescribed Burn in compliance with this article, shall be liable for damage or injury caused by fire or resulting smoke for burns conducted in accordance with this subsection unless gross negligence<sup>13</sup> is proven.

(b) Pertains only to Broadcast Burning. Broadcast Burning may be conducted in accordance with this subsection if:

1. A burn plan has been submitted to the State Forest Service; AND
2. A Certified Prescribed Burn Manager is present on site with a copy of the plan during the ignition; AND
3. There is documented consent of the Landowner or his or her designee; AND
4. Notification of intent to burn is provided to the State Forest Service before igniting the burn; AND
5. There are adequate firebreaks at the burn site and sufficient personnel and firefighting equipment for the Control of the fire; AND
6. It is considered to be in the public interest and does not constitute a public or private nuisance when conducted under applicable state air pollution statutes and rules; AND
7. The Prescribed Burner acquires valid Colorado Air Pollution Control Division (CAPCD) or local smoke permits if required.

---

<sup>13</sup> The higher standard of 'gross negligence' recognizes the importance and value of certain prescribed burns but while this standard may afford Prescribed Burners additional protection from liability, the heightened standard does not diminish the duty of Prescribed Burner to maintain the fire within the parameters of the authorization.

(c) Prescribed Burns conducted under this section are afforded some liability protection.

(d) Any certified burner who violates this section commits a misdemeanor of the second degree, punishable as provided in \*\*\*\*\* .

(e) The State Forest Service shall adopt a process for the use of Prescribed Burning and for certifying and decertifying Certified Prescribed Burn Managers based on their past experience, training, and record of compliance with this section.

## **(6) CERTIFIED BURN MANAGER REQUIREMENTS**

### **(a) Training Required for Certification**

A training program has been established to meet the requirements of this Act. The program requires a Fire Behavior Course, to be completed as a self study class, prior to the Certified Prescribed Burn Manager Training Course. The Certified Prescribed Burn Manager course (see **Appendix A**) will include discussion of fire behavior, burning methods, safety, planning, smoke regulations, smoke issues and Colorado fire laws.

### **(b) How Required Training Can Be Received**

1. Training equivalent to the course outlined and taught by qualified instructors may be accepted as meeting the training requirements. The determination as to the acceptability of any particular training will be made by the State Forest Service.

2. For a schedule of training courses contact the State Forest Service.

### **(c) Maintaining Certification**

1. A Certified Prescribed Burn Manager must meet additional requirements, as outlined below, in order to maintain certification. These requirements are based on a five year time period. Certifications for persons who do not meet this requirement will terminate five years from the date of issue.

(A) Participation in a minimum of eight hours of State Forest Service approved training every five years relating to the subject of prescribed fire; AND

(B) Serve as a Certified Prescribed Burn Manager for two completed prescribed burns within five years; OR

(C) Participate in five certified burns. Participation must be documented and verified in writing by a current Certified Burn Manager; OR

(D) Retaking the Prescribed Burn Manager Course.

(d) Decertification

The State Forest Service will revoke any Certified Prescribed Burn Manager's certification if they demonstrate that their practices and procedures violated Colorado Law, State Forest Service rules, or local rules, or are a threat to public health. Recommendations for decertification will be based on the Certified Burner Violations - Point Assessment Table (see Appendix B).

**(7) NOTICE OF VIOLATION; PENALTIES**

(a) If a State Forest Service employee determines that a person has violated the Colorado Prescribed Burning Act, he or she may issue a notice of violation indicating the statute violated. This notice will be filed with the State Forest Service and a copy forwarded to the appropriate law enforcement entity for further action if necessary.

(b) The State Forest Service may also impose an administrative fine, not to exceed \$\*\*\*\*\* per violation of any section of the Colorado Prescribed Burning Act. The fine shall be based upon the degree of damage, the prior violation record of the person, and whether the person knowingly provided false information to obtain an authorization. The fines shall be deposited in the \*\*\*\*\* fund of the State Forest Service.

(c) In addition to any penalties provided by other existing laws, except when in conformity with section (6) any person who causes a wildfire or permits any authorized fire to escape the boundaries of the authorization or to burn past the time of the authorization is liable for the payment of all reasonable costs and expenses incurred in suppressing the fire or \$500, whichever is greater. All costs and expenses incurred by the State Forest Service shall be payable to the State Forest Service. When such costs and expenses are not paid within 30 days after demand, the State Forest Service may take proper legal proceedings for the collection of the costs and expenses. Those costs incurred by an agency acting at the State Forest Service's direction are recoverable by that agency.

(d) The penalties provided in this section shall extend to both the actual violator and the person or persons, firm, or corporation causing, directing, or permitting the violation.

**(8) DUTIES OF AGENCIES**

All local, state and federal agencies shall incorporate, where feasible and appropriate, the issues of fuels treatment, including Prescribed Burning, into its educational material.

## **(9) GENERAL PROHIBITIONS**

County Commissioners<sup>14</sup>, municipalities<sup>15</sup> and the Governor of Colorado<sup>16</sup> have the authority to declare restrictions and bans on open burning. Under these conditions it is unlawful to conduct any open burning including campfires, bonfires, trash burning or any wildland fires.

## **OTHER LAWS**

### **(1) OPEN BURNING**

The primary agency regulating 'broadcast' burning is the State Forest Service but other agencies at the local, state and federal level also have responsibilities that may be affected by prescribed burns. It is the burn manager's responsibility to comply with the additional requirements of other agencies. At the local level, sheriff's offices, county health departments and/or fire departments may require a permit within their area of jurisdiction. Regardless of permit requirements, the Prescribed Burner/Certified Prescribed Burn Manager must notify local agencies of proposed burns. Good communications will alert the Prescribed Burner/Certified Prescribed Burn Manager of any special local requirements.

### **(2) AIR QUALITY**

At the state level, the Colorado Department of Public Health and Environment, Colorado Air Pollution Control Division (CAPCD) may require a permit for prescribed burns. The CAPCD regulates open burning under its 'Regulation Number 9'<sup>17</sup>. The Prescribed Burner/Certified Prescribed Burn Manager is ultimately responsible for ensuring they are in compliance with CAPCD permit conditions.

### **(3) WILDLIFE**

Wildlife also has protection under both Federal and State law. The 'Endangered Species Act'<sup>18</sup> and other laws afford specific protection for species of wildlife. The Preble's meadow jumping mouse, Mountain plover and elk are just some of the species receiving special attention across the state. During the planning stage, the Prescribed Burner/Certified Prescribed Burn Manager should identify wildlife species requiring special consideration and incorporate this information into the burn Prescription.

---

<sup>14</sup> § 30-15-401(1) (n.5), C.R.S. 2008

<sup>15</sup> § 31-15-401 (1) (q) (I), C.R.S. 2005

<sup>16</sup> § 23-31-308, C.R.S. 2007

<sup>17</sup> Regulation Number 9, Air Quality Control Commission, Department of Public Health and Environment 2007

<sup>18</sup> Endangered Species Act of 1973, as Amended 2008

## Appendix A

### **Colorado Certified Prescribed Burn Manager Course**

Suggested Outline  
(32 hours over 4 days)

#### **1. Introduction**

1. Pre-Test

#### **2. Basic Fire Behavior**

1. Fire Triangle
2. Fuels
  - i. Fuel Characteristics
  - ii. Fuel Models
3. Weather Patterns
  - i. Weather Causes
  - ii. Aspects that affect burning conditions
  - iii. Cold fronts
  - iv. Thunderstorms
  - v. Extreme fire behavior
  - vi. Smoke movement and dispersion
  - vii. Weather forecasts
4. Fuel Moisture
  - i. Moisture transfers between fuel and air
  - ii. Estimating fuel classes
  - iii. Impact of fuel moisture on fire intensity
5. Topography
  - i. Slope
  - ii. Aspect
  - iii. Shape of country
  - iv. Barriers to fire

#### **3. Introduction to prescribed burning**

1. History and use
  - i. Definitions
  - ii. Environmental impacts of prescribed burning
  - iii. Benefits of prescribed burning
2. Planning for prescribed burning
  - i. Burn objectives
  - ii. Before the burn
  - iii. Burning techniques
  - iv. Ignition techniques
  - v. When conducting the burn

#### **4. Legal aspects of prescribed burning**

1. State regulations
  - i. Landowner right
  - ii. Arson
  - iii. Burn permits

- iv. CAPCD rules
    - v. Certified Prescribed Burn Managers
  - 2. Negligence
- 5. Developing a prescribed burn plan**
  - 1. Parts of a plan
    - i. Legal documentation
    - ii. Include plans and results of the burn
- 6. Smoke management**
  - 1. Review liability
  - 2. Air quality standards
  - 3. Factors influencing smoke behavior
- 7. Prescribed burning exercise**
  - 1. Safety briefing
  - 2. Field trip
    - i. Visit and discussion - Evaluating past burns
    - ii. Visit and discussion - Site that needs burning
  - 3. Burn Plans
    - i. Students develop burn plans
  - 4. Evaluation and discussion of burn plans
- 8. Review and final exam**

## Appendix B

<b>CERTIFIED BURNER VIOLATIONS - POINT ASSESSMENT TABLE</b>		
<b>1</b>	<b>Any burn initiated outside of prescription parameters based upon morning forecast (i.e., wind speed, RH, dispersion, temperature, etc.).</b>	<b>Five (5) Points</b>
<b>2</b>	<b>Certified Burner, knowingly misrepresents burn knowingly using false information (i.e., Lat/Long, S-T-R, Certified burn number, equipment on site, personnel).</b>	<b>Fifteen (15) Points</b>
<b>3</b>	<b>Fire escapes from the prescribed area and does not cause damage to property of the certified burner or landowner.</b>	<b>Three (3) Points</b>
<b>4</b>	<b>Any emergency response agency is required to take suppression.</b>	<b>Two (2) Points</b>
<b>5</b>	<b>Failure to pay suppression charges on escaped burn within 15 days of receipt of second notice.</b>	<b>Three (3) Points</b>
<b>6</b>	<b>Failure to identify or mitigate for smoke sensitive areas.</b>	<b>Two (2) Points</b>
<b>7</b>	<b>Certified Burner burns without, notification of intent.</b>	<b>Fifteen (15) Points</b>
<b>8</b>	<b>Failure to attempt to shut down a burn after notification from State Forest Service or CAPCD.</b>	<b>Five (5) Points</b>
<b>9</b>	<b>Escaped fire causes damage to the property/improvements of persons other than landowner.</b>	<b>Five (5) Points</b>
<b>10</b>	<b>Certified burner who attempts to burn as a Certified Burner without a written prescription at the site of burn while burn is being conducted.</b>	<b>Five (5) Points</b>

An accumulation of 15 points over the course of any two-year period, from the date of the last offense will be sufficient to generate a recommendation of decertification for no less than a one-year period. A decertified Prescribed Burn Manager must complete the Certified Prescribed Burn Manager Course in order to be recertified.