

# **TOWN OF CRESTED BUTTE NOXIOUS WEED MANAGEMENT PLAN**

## **SECTION I: INTRODUCTION**

### **1.01 Introduction and Purpose:**

The Town of Crested Butte is in the northern end of the Gunnison Valley and at the headwaters of the Colorado River. As the “Wildflower Capital of Colorado”, the health of our natural environment is a high priority for residents of Crested Butte. The spread of noxious weeds can result in monocultures of weeds rather than the rich variety of wild flowers currently found in our valley. Noxious weeds are jeopardizing our valued ecosystems and displacing native plants. Noxious weeds spread to our downstream neighbors having a negative impact on agricultural lands and other communities. An effective integrated weed management plan is a vital step in protecting the local ecosystems that residents and visitors value so highly.

The intent of this plan is to provide guidelines for managing state and locally designated noxious weeds which represent a threat to the environmental and economic value of lands in Crested Butte. Through education, partnerships, and a sound work plan, this plan should provide a framework for controlling noxious weeds on both public and private property in the Town of Crested Butte.

### **1.02 Enactment Authority:**

*“The governing body of each municipality in the state shall adopt a noxious weed management plan for all lands within the territorial limits of the municipality. In addition to and independent of the powers elsewhere delegated by law, the governing body of a municipality may adopt and provide for the enforcement of such ordinances, resolutions, rules, and other regulations as may be necessary and proper to enforce said plan and otherwise provide for the management of noxious weeds within the municipality....”* Colorado Noxious Weed Act (§ 35-5.5-106)

The Colorado Noxious Weed Act, codified in the Colorado Statutes at § 35-5.5-101 et seq. (2008) (the “Act”), prohibits, among other things, the introduction of noxious weeds into Colorado. It also requires private property owners, as well as state and local entities, to take steps to establish mechanisms and procedures to prevent the establishment of noxious weeds. Where such weeds are already established, the Act requires their abatement and eradication. In conjunction with requiring such mechanisms and procedures, the Act identifies those species that are noxious and categorizes them based upon their impacts and the responses private property owners, state, and local entities must take when such noxious weeds are encountered. Species that are native to Colorado are excluded from the noxious weed list. The Act aims to restore environmentally or agriculturally valuable land. It also authorizes and requires local governments to establish plans regarding the management of noxious weeds and provides for mechanisms to enforce the plans including management, abatement and eradication mandates set

forth in the Act. Lastly, the Act creates a state noxious weed fund, providing grants or contracts to assist local entities in administering weed management plans.

Designated noxious weeds have been arranged into four lists:

- **List A** includes plants designated for eradication on all county, state, federal and private lands;
- **List B** includes plants whose continued spread must be stopped; and
- **List C** includes plants selected for recommended control methods by jurisdictions that choose to require management of List C species.
- **Watch List** species include plants that have been determined to pose a potential threat to the agricultural productivity and environmental values of the lands of the state and is intended to serve advisory and educational purposes to facilitate the collection of information to assist in determining which species should be designated noxious weeds.

Crested Butte’s Noxious Weed List is attached hereto as Appendix A.

In furtherance of the Act, the Gunnison County Board of County Commissioners established the Gunnison County Weed District to coordinate and oversee the Gunnison County Weed Management Plan and provide information and resources to local weed managers. The following noxious weed management plan is intended to advance the intent and comply with the edicts of the Colorado General Assembly relative to noxious weeds and their abatement and eradication.

### **1.03 Weed Advisory Board:**

*“The governing body of each county and municipality shall appoint a local advisory board.”*  
Colorado Noxious Weed Act (§ 35-5.5-107)

Crested Butte has appointed a local Noxious Weed Advisory Board (“the Board”), whose power and duties, administratively supported by Town Staff (“Staff”), are as follows:

1. To develop a Weed Management Plan for the integrated management of designated noxious weeds;
2. To declare noxious weeds and any state noxious weeds designated by rule to be subject to integrated management;
3. To recommend to the Crested Butte Town Council that identified landowners be required to manage noxious weeds on their property.

The Board and Staff may also:

- Provide education, information, and resources to the property owners and residents of Crested Butte to assist them in identifying and managing noxious weeds on their property;
- Monitor noxious weed levels on private and public property and notify owners who are not in compliance with the Colorado Noxious Weed Act.
- Develop a priority list of areas for weed management.
- Generate infestation maps to aid in noxious weed management.

#### **1.04 Duties of Local Governing Bodies:**

*“A local governing body shall initiate and maintain communications with landowners who are affected by list A species and populations of list B species designated for eradication...”*  
Colorado Noxious Weed Act (§ 35-5.5-108.5 (2008))

- Provide affected landowners with technical assistance for the eradication of list A species and populations of list B species designated for eradication;
- Carry out sufficient measures, including project oversight and enforcement, as may be necessary to ensure the eradication of list A species and populations of list B species designated for eradication;
- Determine the cost of eradication to be borne by affected landowners.

The complete Colorado Noxious Weed Act is attached hereto as Appendix B.

### **SECTION II: JURISDICTIONAL OVERVIEW OF AREAS OF INFESTATION IN CRESTED BUTTE**

*“In enacting this article the general assembly finds and declares that there is a need to ensure that all the lands of the state of Colorado, whether in private or public ownership, are protected by and subject to the jurisdiction of a local government empowered to manage undesirable plants as designated by the state of Colorado and the local governing body. In making such determination the general assembly hereby finds and declares that certain undesirable plants constitute a present threat to the continued economic and environmental value of the lands of the state and if present in any area of the state must be managed.”* Colorado Noxious Weed Act (§ 35-5.5-102 (2008))

#### **2.01 Town Land:**

The Town should use integrated weed management strategies for the Town’s designated noxious weeds as specified in this plan and in Appendix A of this plan for all Town owned property

including parks, trails, open space, public areas, and town owned lots in accordance with Town code § 7-3-110 et seq. (2016). An integrated weed management approach including mechanical, chemical, cultural, and biological control methods should be implemented on all Town owned property.

A priority list of areas for management should be established each growing season based upon input from the Weed Advisory Board, the public, and recommendations of Town Staff.

### **Town Rights-of-Way**

*“It shall be the duty of each local governing body to confirm that all public roads, public highways, public rights-of-way, and any easements appurtenant thereto, under the jurisdiction of each such entity, are in compliance with this act...”* Colorado Noxious Weed Act (§ 35-5.5-112 (2008))

Town rights-of-way will be generally sprayed for noxious weeds by a licensed applicator. The Town may also selectively spot spray rights-of-way that are deemed to be problematic. There will be no general herbicide applications to non-listed weeds unless specifically requested by The Town’s Parks, Recreation, Open Space and Trails (PROST”) Director, Public Works Director, or the Town Council.

Right-of-way treatment will be performed during the growing season and each area on the priority list will be treated at least once. If time and workload allows, some of the heavily infested areas may be treated a second time.

The Public Works Department should dedicate staff time to actively manage weeds on all public rights-of-way including road sides and alleys.

### **Town Parks**

The Town of Crested Butte owns 10 acres of park space in addition to Elk Avenue which is maintained as if it were a park. Town parks should be sprayed by a licensed chemical applicator at least once per growing season. Noxious weeds such as Scentless Chamomile and Oxeye Daisy that respond well to hand pulling should be mechanically controlled.

The Parks and Recreation Department should dedicate park staff and community service time to actively manage weeds in all park spaces and along Elk Avenue.

The Parks Supervisor for the Town of Crested Butte should hold a Public Applicators license and oversee all chemical control work within Town parks.

### **Town Owned Trails and Open Space**

The Town should work with the Crested Butte Land Trust, Gunnison County, easement holders, and local land management agencies to identify priority areas for weed eradication on trails and

open space. An integrated management approach and the use of Youth Corp, staff, and volunteer time should be dedicated to manage weeds on all Town owned trails and open space areas.

### **Other Town Owned Property**

The Community Development Director, Public Works Director, PROST Director, Chair of the Cemetery Committee, and the Noxious Weed Advisory Board should work collaboratively to develop a plan and employ integrated weed management practices at the Gravel Pit, Cemetery, Town Shop, empty lots, and other Town owned areas that fall outside of the parks, trails, open space, and right-of-way categories. All disturbed areas and empty lots should be properly revegetated and reclaimed to prevent noxious weed infestations.

The Town should post Public Service Announcements via e-alert, KBUT, and the Crested Butte News to alert citizens when large areas of Town owned property will be sprayed for noxious weeds.

### **2.02 Private Property:**

It is the intent of the Town to work collaboratively with private land owners and provide resources and education on the state mandated weed law requiring eradication of some noxious weeds on their property. The management of all noxious weeds on private property will be in accordance with § 7-3-110 et seq. (2016).

## **SECTION III: INTEGRATED MANAGEMENT PLAN**

The purpose of integrated management is to achieve healthy and productive natural ecosystems through a comprehensive, interdisciplinary, balanced program. An integrated approach to weed management includes choosing from a variety of available weed control strategies and predicting their long term effects.

Collaboration with other local entities, including but not limited to, Gunnison County, local USFS and BLM offices, CSU Extension Office, Town of Mt. Crested Butte, Crested Butte South, Crested Butte Land Trust, High Country Conservation Advocates, Rocky Mountain Biological Laboratory, and the Crested Butte Wildflower Festival is vital to the success of this plan.

### **3.01 Goals:**

Weed Management Goals of the Town of Crested Butte

- A. Develop and implement a comprehensive noxious weed management program on all Town owned property.

- B. Provide education about and promotion of town-wide public awareness on the detrimental effects of weeds.
- C. Eliminate designated noxious weeds from Town parks, public rights-of-way, town owned property, and private property.
- D. Control infestations of noxious weeds at disturbed sites such as new development or construction.
- E. Collaborate on landscape scale weed mitigation and native restoration projects with federal, state and local government agencies, private landowners, and other organizations and businesses in and near the Town of Crested Butte.
- F. Work with other government agencies and departments to institute best management practices and/or policies that stress prevention as a weed management tool.
- G. Promote and use integrated weed management techniques.
- H. Establish and maintain healthy plant communities with native or beneficial vegetation.
- I. Restore and maintain desirable plant communities and healthy ecosystems in Crested Butte.
- J. Stop the spread of noxious weeds to uninfested lands.
- K. Contain heavily weed-infested areas.
- L. Uphold the Town's noxious weed ordinance § 7-3-110 et seq. (2016).

### **3.02 Education and Awareness:**

Education should play a major role in implementing this weed management plan. Groups targeted for public education include homeowners, private citizens, developers, construction contractors, excavation contractors, gardeners, landscapers, plant nurseries, public and private land management agencies, recreational users, youth groups, schools, and utility companies.

A partnership of the public and private sectors, along with awareness of what noxious weeds are and the problems they cause, is essential to maintain or create plant communities that are free of noxious weeds. Knowledge about how to identify weeds, how and where noxious weeds spread, and what it takes to manage these weeds is needed. Continuation and expansion of current educational programs as well as the development of new programs should be a priority.

Opportunities for education include:

- Collaboration with local organizations, schools, and events to partner on educational

- opportunities.
- Weed tours, public information sessions, and community weed pull days.
  - Resourceful weed management page on the Town's website.
  - Contacting area nurseries, landscapers, and landscape architects, to emphasize the problems created by escaped ornamentals.
  - Cooperation with local media to disseminate weed information.
  - Widespread distribution of informative printed material.

The following should be emphasized in the public-information campaign to help people understand their role in noxious weed management:

1. Colorado law and Town code mandates weed eradication.
2. The spread of noxious weeds can result in monocultures of weeds rather than the rich variety of wild flowers currently found in our valley.
3. Proper plant identification and an understanding of the target weed and its reproductive nature.
4. Maintaining land that is free of noxious weeds is good stewardship. Landowners who do not manage their weeds place their neighbors' lands at risk.

### **3.03 Prevention and Detection:**

The first priority is to prevent the introduction of any noxious weed to any area not previously infested. Prevention is the highest priority weed management technique on non-infested lands. Among government officials, land managers, farmers, ranchers, and the general public there is growing recognition that protecting weed-free plant communities is the most economical and efficient land management practice.

The spread of noxious weeds is most likely to occur where soil has been disturbed either by human activities (road and trail cuts, construction sites, the spread of gravel, road fill and topsoil contaminated with noxious weed seed, or overgrazing) or by natural events (fire, avalanches, mudslides, flooding). Disturbed land provides opportunity for noxious weeds.

Exotic plants and seeds such as Oxeye Daisy, Purple Loosestrife, and Toadflax can escape from our yards and gardens. Since they are attractive and establish themselves quickly, they are popular with landscapers and gardeners for ornamental planting and may be purchased through nurseries. They have the same ability to dominate and spread as other better known noxious weeds.

Other known methods of weed introduction include:

- Contaminated seed, feed grain, hay, straw, and mulch
- Movement of contaminated equipment, cars, bikes, etc. across uncontaminated lands
- Animal fur, fleece, human clothing
- Dried flower arrangements

Prevention is best accomplished by ensuring that new weed species seed or vegetative reproductive plant parts of weeds are not introduced into new areas, and by early detection of any new weed species before they become widespread. Strategies to prevent the introduction or establishment of noxious weeds in areas not already infested include:

- Identification and eradication of small, new infestations.
- Continuous monitoring and evaluation to prevent recurrence.
- Identification of existing conditions, disturbances, and activities that represent a potential threat to native habitat; and plan for prevention
- Identification of recently introduced weed species that represent a future threat and plan for management.
- Timely revegetation and reclamation of disturbed sites using appropriate native plant species.
- The use of weed free seeds and mulch.
- Countywide promotion of the Colorado Weed-Free Hay and Forage program.
- Prioritization of weed management along areas of entry and dispersal.
- Discouraging the sale of weedy ornamental plants and seed packets that contain noxious weeds.
- Washing of contaminated vehicles and bikes prior to entering uncontaminated land.

### **3.04 Revegetation and Rehabilitation:**

A crucial part of any weed management plan is the reintroduction of site appropriate vegetation. Establishing desirable plant communities after noxious weeds have been removed from a highly infested area require timely cultivation and reseeded. Since the seeds from noxious weeds may lay dormant for many years, removing all visible signs of the noxious weed does not ensure against its return.



Revegetation can help prevent the germination of weed seeds. It is important to inspect the land regularly to identify and treat small new infestations. For proper reclamation, irrigation, fertilization, and reseeded are essential to establishing desirable plant communities. Native plants are most appropriate when the goal is restoration to restore native habitat.

Certified weed-free seeds of native Colorado grasses, wildflowers or plant species appropriate to the site may be purchased, but the best source for seeds is from native species that grow in the immediate vicinity of the infestation. They will be best adapted to local conditions and will help maintain local integrity and genetic viability. Using native plants or seeds to reclaim disturbed land reduces degradation of native ecosystems, reduces the need for herbicides and conserves water resources.

When the goal is reclamation (reseeding for quick ground cover establishment or erosion control), it may be appropriate to use introduced, non-aggressive grasses and forbs. Contact the Natural Resources Conservation Service or Colorado State University Cooperative Extension for seeding recommendations. The Native Plant Revegetation Guide for Colorado, published by the Colorado State Parks Natural Areas Program, is an excellent guide for native plant reseeding. See Appendix C: Resource Directory and Sources of Information for contact information and websites.

### **Strategies:**

- Seed in and around the disturbed area and choose native plant species that are seen in the area for reintroduction.
- Retain and utilize as much on-site topsoil as possible.
- Select a predominant species that is appropriate to the site; then choose a few complimentary species to provide a balanced plant community
- Choose plants that are healthy, vigorous, and pest-free.
- Use weed-free seeds. Use non-hybrid seeds. Avoid commercial seed packets containing exotic plant species.
- Choose plants that are horticulturally appropriate, i.e. plant species that are adaptable to climate, soil and topographical conditions of the designated area.
- Consider the use of water, its availability and the vegetative requirements.
- To landscape for wildlife, choose native plants that provide cover, forage, seeds, and shade.
- Be site-specific; revegetation strategies may vary for small areas, empty lots, construction sites, etc.

- Establish a vegetative cover that is diverse, effective, long lasting, and capable of self-regeneration.
- Stabilize the surface.

### **3.05 Control Methods:**

#### **Biological Control**

Biological control is the control of undesirable plants through the use of living organisms. Biological control uses organisms (insects, mites, diseases and grazing animals) which feed only on specific noxious weeds.

Several varieties of insects which can be used on various plants are commercially available. They may be purchased by individuals to be used as part of an integrated plan. This type of control is still in its infancy. It is being researched and directed by the Colorado Department of Agriculture Insectary in Palisade, Colorado. Ideally, insects will provide an economical and environmentally safe control method. However, there are certain problems associated with this type of control. There is a limited supply of all species and purchasing insects may require a large initial investment. The compatibility of herbicides and insects is not well known. Also, participation in this project may preclude the use of certain types of control, which would allow infestations to multiply and set seed. To prevent this, land operators must prepare an integrated plan to effectively control these infestations. Research indicates insects may be a valuable control method to be used in integrated pest management plans in the future.

#### **Chemical Control**

Chemical control is the control of undesirable plants through the use of herbicides. Only those chemicals that have been tested and authorized by the Environmental Protection Agency (EPA) and bear “Caution” labels should be used in the treatment of noxious weeds (more toxic chemicals bear “Danger” or “Warning” labels). Herbicides should be applied by spot treatment not broadcast over large areas with aerial or truck-mounted equipment.

The Town should notify the public prior to spraying rights-of-way, parks, trails, open space and other large areas. Such notification should include the chemical to be used, the location of the spray area, and the date and time when the spraying will occur.

The following best practices should be applied when using chemical control methods:

- A. All chemical application must be done according to the label for each individual product.
- B. The choice of chemicals and application rates that are used should be the least environmentally damaging as determined by information currently available. This determination may come first from recommendations in the Colorado Pesticide

Guide from Colorado State University Cooperative Extension. It may also be tempered by the wishes of land owners and the experience of trained personnel associated with the program.

- C. While chemicals are a powerful tool, it must be realized that they are just a tool and must be used only as part of an integrated management plan.
- D. Citizens may contact Gunnison County's Noxious Weed Program for recommendations and support for use of chemical control methods.

## **Cultural Control**

Cultural control includes methods or management practices which favor the growth of desirable plants over noxious weeds, including maintaining optimum fertility and plant moisture status in an area, planting at optimum density and spatial arrangement in an area, and planting species most suited to a particular area.

## **Mechanical Control**

Mechanical control encompasses methods or management practices that physically disrupt plant growth including mowing, cutting, hand pulling, and burning. All of these measures, when correctly implemented over an appropriate length of time can eliminate seed production and have a positive long-term effect. It is important to have a good understanding of the reproductive nature of each plant prior to implementing a control method. Utilizing a method that is not recommended may have the opposite desired effect and cause the weed to spread more rapidly. Please refer to Appendix A for recommendations on best practices for treatment methods.

## **SECTION IV: ENFORCEMENT**

### **4.01 Enforcement:**

*"...the governing body of a municipality may adopt and provide for the enforcement of such ordinances, resolutions, rules, and other regulations as may be necessary and proper to enforce said plan and otherwise provide for the management of noxious weeds within the municipality..."* Colorado Noxious Weed Act (§ 35-5.5-106 (2008))

The enforcement of this plan on all public and private lands within the jurisdiction of the Town of Crested Butte shall be in accordance with Crested Butte Town Code § 7-3-110 et seq. (2016). Ordinance No. 11 Series 2016 is attached hereto as Appendix D.

## SECTION V: PLAN EVALUATION

### **5.01 Evaluation:**

The Crested Butte Weed Management Plan should be reviewed and amended by the Weed Advisory Board and any recommended changes to the plan should be presented to the Crested Butte Town Council for approval, modification, or rejection once every three years per Town code § 7-3-150 (2016). A report on weed management efforts should be presented to Town Council annually.

## SECTION VI: DEFINITIONS

### **6.01 Definitions:**

1. Act – The Colorado Noxious Weed Act, Title 35 C.R.S., Article 5.5 as amended.
2. Biological Control – The use of organisms to disrupt the growth of noxious weeds.
3. Chemical Control – The use of agents or plant growth regulators to disrupt or inhibit the growth of noxious weeds.
4. Cultural Control – Methods or management practices which favor the growth of desirable plants over noxious weeds, including maintaining optimum fertility and plant moisture status in an area, planting at optimum density and spatial arrangement in an area, and planting species most suited to a particular area.
5. Designated Noxious Weed – A non-native, invasive plant or plant parts that is identified as a threat to native plant communities and included on the Crested Butte Noxious Weed list.
6. Desirable Plants – Plants considered to be advantageous and beneficial to the environmental viability of the county.
7. Escaped Ornamental -A plant originally intended for horticultural or landscape situations that has escaped its intended boundaries.
8. Exotic Plant – A plant that is not a regular member of the native or natural community in which it is found.
9. Forb - A broad-leafed, non-woody plant other than grass that dies back to the ground after each growing season.

10. Forage - Food for animals, especially when consumed by browsing or grazing.
11. Crested Butte Noxious Weed Advisory Board – A steering committee of local weed management partners and citizens who collaborate and advise the Town on matters of management of noxious weeds.
12. Infestation – Growth of an undesirable plant which has become harmful or bothersome.
  - Heavy Infestation – Dense, 25-100 percent canopy cover.
  - Moderate Infestation – Widely scattered plants, 5-25 percent canopy cover.
  - Light Infestation – Occasional plant per acre, less than 5 percent canopy cover.
13. Integrated Management – The planning and implementation of a coordinated program utilizing a variety of methods for managing noxious weeds, the purpose of which is to achieve desirable plant communities. Such methods may include but are not limited to education, preventive measures, good stewardship, and biological, cultural, herbicidal and mechanical management.
14. Landowner – Any owner of record of state, municipal or private property including an owner of any easement, right-of-way, or estate within the county.
15. Local Noxious Weed – Any plant of local importance which has been declared an invasive or undesirable plant by the Crested Butte Weed Advisory Board.
16. Management – Any activity that prevents a plant from establishing, reproducing, or dispersing itself.
17. Management Plan – A plan developed by the Weed Advisory Board and implemented by the Crested Butte Town Council in order to control the spread of noxious weeds.
18. Mechanical Control – Methods or management practices that physically disrupt plant growth including tilling, mowing, burning, flooding, mulching, hand-pulling, shoveling, hoeing, and chopping.
19. Monoculture – A single homogeneous crop without diversity.
20. Native Plant – A plant species that is indigenous to a particular locale.
21. Noxious Weed – An alien plant or parts of an alien plant that has been designated as being invasive and undesirable and has been declared a noxious weed by the Weed Advisory Board and meets one or more of the following criteria: aggressively invades or is physically destructive to economic crops or native plant communities; is detrimental directly or indirectly to the environmentally sound management of natural or agricultural ecosystems; is poisonous to livestock; is a carrier of detrimental insects, diseases or parasites.

22. Noxious Weed Management – The planning and implementation of an integrated program to manage undesirable or problematic plant species.
23. Ornamental - A decorative, aggressive, non-native plant often sold through nurseries or spread through seed collection; a threat to native plant species because it has no natural predators and thus competes against the plants of the natural ecosystem.
24. Restoration – The improvement of degraded, damaged, or destroyed ecosystems that rebuilds ecological and environmental integrity and restores natural plant communities.
25. Revegetation – The process of stabilizing land and replanting vegetation where it has been destroyed or disturbed in order to restore native plant communities and improve biodiversity.
26. State Noxious Weed – Any weed identified by the commissioner of the State of Colorado Department of Agriculture after surveying the Local Weed Advisory Boards and prioritizing the top ten problematic plants. Said survey is to be conducted every three years.
27. Wildflower – The flower of a wild or uncultivated plant or the plant bearing it.