RESOLUTION NO. 11

SERIES 2009

A RESOLUTION ADOPTING THE WEED MANAGEMENT PLAN FOR THE TOWN OF CRESTED BUTTE

WHEREAS, the Town of Crested Butte, Colorado (the "**Town**") is a home rule municipality duly and regularly organized and now validly existing as a body corporate and politic under and by virtue of the constitution and laws of the State of Colorado;

WHEREAS, the Colorado General Assembly has enacted the Colorado Noxious Weed Act (§ 35-5.5-101 et seq.) (the "**Weed Act**") in recognition of the need to ensure that all lands in the State of Colorado, whether in public or private ownership, are subject to the jurisdiction of local government empowered to manage undesirable plants designated by the State and local governing bodies;

WHEREAS, in adopting such legislation, the General Assembly has determined 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 must be managed;

WHEREAS, the General Assembly's intent in adopting the Weed Act is to cause local governing bodies to adopt and implement undesirable plant management plans with methods for appropriate and available management and control that are the least environmentally damaging as possible, practical and economically reasonable;

WHEREAS, the Town Council shares the General Assembly's concerns and goals under the Weed Act, and it recognizes the import of the General Assembly's legislative declarations;

WHEREAS, to date the Town has not adopted an undesirable plant management plan;

WHEREAS, the Town Council has determined that the Town must adopt an undesirable plant management plan in order to mitigate the existence and prevent the proliferation of undesirable plants that constitute a present threat to the continued economic and environmental value of the lands of the Town and that the Town is in the best position to cause the management of such undesirable plants; and

WHEREAS, the Town Council strongly supports adoption of an undesirable plant management plan, such a plan being in the best interest of the health, safety and welfare of the residents and visitors of the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CRESTED BUTTE, COLORADO THAT the Weed Management Plan for the Town of Crested Butte attached hereto as **Exhibit "A"** is hereby adopted as such plan accomplishes the goals of the Town Council in managing undesirable plants that constitute a present threat to the continued economic and environmental value of the lands within the Town.

INTRODUCED, READ AND ADOPTED UPON THIS FIRST READING, THIS 8th DAY OF SEPTEMBER, 2009.

TOWN OF CRESTED BUTTE, COLORADO

By: _____
Alan Bernholtz, Mayor

ATTEST:

_____
Eileen Hughes, Town Clerk

(SEAL)

EXHIBIT "A"

[attach Weed Management Plan for the Town of Crested Butte here]

Exhibit A

Noxious Weed Management: A Proposed Plan for the Town of Crested Butte

"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 (2008))

Introduction

One of the effects of globalization is the spread of exotic plant species. The spread of these species has impacted the inter-mountain western United States particularly hard, including the Gunnison Valley. Introduced intentionally as garden ornamental plants, or inadvertently as seeds carried by animals, vehicles, wind or water, most of these species either succumb to their alien environment or peacefully coexist with native vegetation. But a few hardy exotic species, in the absence of natural enemies to stem their spread, proliferate in their new habitats, threatening to supplant native species and disrupt entire ecosystems. Known and generally identified as "noxious weeds", these species are the target of certain federal legislation (e.g., 1975 Federal Noxious Weed Act, 1990 National Undesirable Plant Management Act and 2000 Plant Protection Act) as well as numerous state laws aimed at abating such noxious weeds, or where abatement is no longer possible, eradicating them.

Colorado Law

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 on 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 annual grants or contracts to assist local entities in administering weed management plans.

The Act aims at stopping the spread of 73 specific noxious weed species that the Colorado General Assembly has found to be a threat to the continued economic and environmental value of lands around Colorado. Such noxious weeds have been arranged in three lists:

- List A includes plants designated for elimination 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.

Most of these listed noxious weeds, including those in List A, have not yet appeared in the upper East River valley. The proposed noxious weed list for Crested Butte (see Appendix A attached hereto) is limited to those species on Colorado List B that have been observed in Crested Butte and the surrounding environs of the upper East River valley.

In furtherance of the Act, the Gunnison County Board of County Commissioners established the Gunnison Watershed Weed Commission to coordinate and oversee the Gunnison River Watershed Noxious Weed Management Program and provide information and resources to local weed managers. In August 2008, the Mt. Crested Butte Town Council adopted a weed management and enforcement plan. 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.

Crested Butte Weed Management Plan

Program Summary[1]

Introducing the noxious weed management program in phases, as described in Parts 1 through 7 below, is designed to help build support by educating the public about the issues of noxious weeds, giving residents time to understand the extent of the problem, and the options for eradicating noxious weeds. Private property owners and occupants will be responsible for eradication of noxious weeds on Town rights-of-way in the vicinity of their homes and on their private land. The Town will be responsible for eradicating listed species from parks and other public property. The Town will control noxious weeds on rights-of-way, and private land if residents do not eliminate noxious weeds in these locations.

The Crested Butte weed management plan has nine basic parts. Part 1, summarizes the major components of weed eradication. Parts 2 through 9 discuss who is responsible for weed eradication and prevention. The major parts of the Crested Butte Weed Management Plan are:

1. education and techniques for eradication of noxious weeds;
2. Town elimination of noxious weeds in parks and from other public land;
3. volunteer elimination of noxious weeds in the Town rights-of-way;
4. Town elimination of noxious weeds in the Town rights-of-way;
5. volunteer elimination of noxious weeds on private property;
6. Town elimination of noxious weeds on private property;
7. new development and construction site weed eradication;
8. ongoing enforcement and eradication of noxious weeds on Town rights-of-way and on private property;
9. controlling points of sale of noxious weeds at nurseries and venders who sell, or give away flowers.

[1] Links to full-text, representative weed plans in several Colorado jurisdictions may be found in Appendix B.

Part 1: Education and Techniques for Eradication of Noxious Weeds

The Crested Butte weed management program is an integrated weed management plan. It is a flexible approach utilizing a range of tools to deal with noxious weeds including:

- prevention through community support;
- mechanical (digging) methods to eradicate noxious weeds;
- the use of chemicals (sprays) to eradicate noxious weeds that have not been, or cannot be, eradicated with mechanical or other means using caution, and a policy of going slowly to evaluate their impacts and their success or failure ;
- revegetation with, preferably, native and other species not on the Colorado noxious weed lists, to help prevent the recurrence of targeted weeds;
- real estate disclosure of noxious weeds

Please note: the use of words such as "eliminate" and "eradicate", throughout this document , means it is the intent of the Town and its citizens to eliminate noxious weeds, but noxious weeds produce seed, that fall to the ground and will generate plants for years after the seeds are created. Therefore, the goal is to eliminate noxious weeds, but controlling such weeds should be the most important priority as the Town implements its weed plan to eradicate noxious weeds in the next few years.

a. Prevention through community support.

Public information is critical to the success of any weed management program. The major issues listed above need to be addressed in public information. Prevention via Enlisting Community Support.

Prevention includes notifying the public about what is, and what is not, a noxious weed. It also includes ideas for preventing the spread of noxious weeds. After this plan is adopted, the Crested Butte Noxious Weed Commission, appointed by the the Town Council should develop an implementation plan and budget for prevention of noxious weeds in Crested Butte.

Many people mistakenly assume that several of the listed species are not noxious weeds but rather natural, harmless elements of the landscape and may be reluctant to eradicate them. For instance, Oxeye daisy (*Chrysanthemum leucanthemum*) look very much like Shasta daisy (*Leucanthemum x superbum*), a plant that can be purchased in many nurseries. Oxeye daisies spread quickly over a site whereas Shasta daisies, while not native to the valley, tend to stay where they are planted, but even Shasta daisies may be aggressive under certain circumstances. Yellow toadflax (*Linaria:Scrophulariaceae*), also known as "butter and eggs", is a plant found throughout the valley. Since Yellow toadflax is found in many locations, some people may interpret it to be a native plant. It is not native and spreads very aggressively. More information about Yellow toadflax and the other listed species can be found in Appendix A.

The recommended steps in prevention are:

i. educate the residents of Crested Butte about what is, and what is not, a noxious weed;
ii. educate the public about why noxious weeds are an issue;
iii. encourage the residents of town to eradicate individual plants that are trying to get a start, wherever they find them; and
iv. don't purchase noxious weeds for residential gardens.

The following two major statements should be emphasized in the public-information campaign to help people understand the basis for Crested Butte's noxious weed management program.

i. Colorado law mandates weed eradication;
ii. the spread of noxious weeds can result in monocultures of weeds rather than the rich variety of wild flowers currently found in our valley.

Gaining the enthusiastic support of residents to manage weeds may not be easy, but it should not be impossible: consider the success of the annual dog-poop cleanup, another unpleasant chore that volunteers have turned into a springtime celebration of sorts. Again, a strong educational effort at the outset is key. Pamphlets describing the problem and solutions adopted elsewhere – either generated locally or acquired from Gunnison County and the Colorado Department of Agriculture -- could be distributed in Crested Butte Post Office boxes, town property management offices for non-box holders and local retail outlets. The Crested Butte News could feature the program and outline its provisions. The program also could be prominently and timely featured at the Wildflower Festival as a plan to preserve Crested Butte's status as the state's wildflower capital. Because noxious weeds pose a major threat to native plants, the Wildflower Festival may be a good time to formally launch or prominently feature the weed plan as a way to preserve Crested Butte's status as the state's wildflower capital. In light of budget constraints, volunteers could be sought at that time to participate in weed and/or seedpod pulling and bagging events on rights-of way-and other public land throughout the summer. Residents could be urged to immediately begin weed control on their properties as well.

b. Eradicating noxious weeds by mechanical means.

Some plants can be eradicated via mechanical methods (digging, pulling use of weed matting, solarizing, or cutting every year). Almost everyone agrees that mechanical methods to eradicate noxious weeds are best. Mechanical methods do not pose threats to human health or to other creatures living in the valley. They do not pose a threat to water quality, and they can be effective, for some plants. Mechanical eradication is most effective for Scentless chamomile (*Matricaria perforata*). Eradicating other plants by pulling can be unsuccessful because their root systems are such that that a person can pull the above-ground plants but usually leaves most of the root system in the ground, and each root end can become a new plant (See below).

Weed matting can also be used on piles of dirt to prevent noxious weed seeds from sprouting until after the dirt has been moved to its permanent location. In the long term, such matting will be cost effective, compared to eradication of noxious weeds. Solarizing is an effective way of eradicating noxious weeds. Solarizing entails placing black or opaque plastic sheeting on the ground, where noxious weeds predominate. Rocks can be used to hold the plastic down. The plastic should be left on the ground for at least one growing season. All plants under the plastic can be expected to die. If there are isolated plants one desires to maintain, holes can be cut in the plastic to allow those plants to live.

To address public concern about the health and environmental impacts of selective herbicides, volunteers should be encouraged to first try techniques for pulling, digging, and suing weed matting or solarizing weeds. Emphasis on non-chemical eradication techniques would also enable the K-12 population to participate in the plan (see "Alien Invasion: Plants on the Move: Weed Curriculum for Grades K-12," at www.arealbutte.com).

Mechanical means of eradicating noxious weeds should always be tried first because we are a headwaters community and the prevention of pollutants from sprays in the waters should be a priority. Programs to assist the elderly and people who are disabled should be considered and designed to help eradicate noxious weeds mechanically on property owned and occupied by such people.

c. Chemical treatment of noxious weeds.

Many people oppose, or fear, the use of chemical herbicides, even those that are not considered by the EPA or chemical companies to be toxic to humans, animals or surrounding vegetation. This may cause people to resist using these effective methods to eradicate weeds that cannot be effectively pulled and bagged. Special provisions - at a minimum, prior notification of chemicals to be used, where and when - must be made to accommodate those with concerns about chemicals or chemical allergies. To help assuage public concern over herbicide use, it should be emphasized that the Town will only use chemicals that have been tested and authorized by the Environmental Protection Agency (EPA) and that bear "Caution" labels. (More-toxic chemicals bear "Danger" or "Warning" labels.) Further, it should be stressed that these herbicides will be applied by spot treatment, not broadcast over large areas with aerial or truck-mounted equipment.

Some noxious weeds are more affected by herbicides in the fall than at other times of the year. Others can be sprayed effectively earlier in the year. Spraying in spring and fall, before and after pollination and flowering times, is another consideration. More information about when to spray each type of noxious weed can be obtained from the Gunnison County Weed Coordinator, Rick Yegge, at 209-8831, or from John Scott, Manager of the Gunnison Conservation District of the state Natural Resources Conservation Service (NRCS) at 641-0494.

One of the tools the Town will use to eradicate noxious weeds in rights-of-way and on other Town properties and dandelions in parks, is chemical treatment. Owners

of food gardens should eliminate noxious weeds from their property, from town property, and dandelions in parks in the vicinity of their gardens. If owners do not control noxious weeds on Town properties and dandelions in Town parks in the vicinity of their food gardens, the Town will use whatever means necessary to rid the Town lands of noxious weeds and dandelions in parks.

Because individuals often mix sprays s too strongly, and therefore place too much chemical on the plants and ground, and because the Town needs to find ways to make weed eradication easier, the Weed Commission should look into programs to provide already mixed, and therefore properly mixed, spays for sale/rent to the public and whether there is staff time to provide such programs.

d. Revegetation

An important tool in weed eradication is revegetation which discourages new weed growth by taking up space and nutrients with native plants and other species not on Colorado's noxious weed lists. According to John Scott, Manager of the Gunnison Conservation District of the NRCS, native grasses are the most suitable replacement for eradicated weeds. His agency could help obtain suitable native grass seeds for the revegetation effort at low cost from Arkansas Valley Seed (www.avseeds.com), or other sources.

The timing for revegetation depends on the severity of the weed infestation and the time weeds were pulled or sprayed. Resources such as John Scott should be consulted. Some people put new seed down when they disturb the soil during weed pulling so the seed is ready to grow as soon as the rains begin or the snow melts.

A critical tool for residents to use after uprooting noxious weeds from their gardens is information on alternative plantings. A good source is "Garden Smart Colorado" (www.cwma.org/gsc07.pdf), which lists noxious weeds and suggests both native and harmless cultivated species, suitable for high altitudes, to replace them. For example, native Pearly everlasting (*Anaphalis margaritacea*) and cultivated White coral bells (*Heuchera* spp., white varieties) are suggested as alternatives to Scentless chamomile.

When the Weed Commission develops its implementation plan, consideration should be given to Town provision of revegetation seed whenever the Town can afford to do so.

Part 2. Town Elimination of Noxious Weeds in Parks and from Other Public Land

Because the Town owns the Town parks and other public properties, it is the Town's responsibility to maintain those properties. The Town has been pulling weeds, spraying weeds with chemicals, meeting with concerned citizens about the impacts of chemicals, and researching other means to eliminate noxious weeds and other weeds, such as dandelions, for about ten years. Town staff tried alternative chemicals such as beet juice with little success. In 2007 the Town hired goat shepherds to bring their goats to town to eat Scentless chamomile, with some success, but not enough to continue the program. In recent years, the Town has increased its efforts to address noxious weeds and has hired

licensed weed eradicators to help address noxious weeds on Town land. The Town has made progress but the effort is not complete. Although the Town has begun addressing noxious weeds at the cemetery and newly acquired lands, such as the Eighth Street Greenway, Town owned lands continue to need major attention before the Town can say it has been successful.

The Town will continue its efforts to eliminate noxious weeds on all Town properties. Town efforts will include working with volunteers to eradicate noxious weeds in pocket parks with volunteer help, setting aside volunteer days to pull appropriate weeds, and spraying EPA "caution" labeled chemicals to address larger problem areas.

Part 3: Volunteer Elimination of Noxious Weeds in the Town Rights-of-way.

The first 12 months after the program's adoption the following simultaneous actions will occur:

a. emphasize educational efforts to enlist residents' support;
b. begin the eradication of listed noxious weeds on town rights-of-way – the 18-foot area between the curb and property lines fronting streets and the 16 feet comprising town alleys (26 feet in the Verzuh Annexation); and
c. continue Town actions on Town owned land as described above.

Property owners and occupants fronting streets are responsible for eradicating listed weeds on street-front rights-of-way; property owners and occupants fronting alleys share responsibility for eradication across alleys (8 feet or 13 feet) from their property line.

Eradication methods will vary according to species. Chamomile, the most rampant noxious weed in town, is also the easiest to eradicate – by pulling and bagging. Where possible, plants should be pulled before full flowering to avoid seed dispersal. Care should be taken to bag all pulled plants and buds to minimize seed dispersal. Scentless chamomile plants may be placed in bags (preferably biodegradable) and then in trash cans for regular trash pickup.

Pulling alone will not eradicate most weeds that spread by underground roots, or rhizomes, such as Black henbane (Hyoscyamus niger) and Yellow toadflax. (Exceptions are Oxeye daisy and Houndstoungue [*Cynoglossum officinale]*, which can be successfully pulled when the soil is wet.) Digging may work with these weeds, but only if care is taken to remove the entire underground root structure: Even small portions of rhizome left behind may sprout new plants the next spring. It is easier to dig out most weeds when the soil is moist.

Weeds that spread only by seed, such as Houndstoungue and Musk thistle (*Carduus nutans*), may be eradicated by cutting and bagging their seed pods.

Some weeds, such as Canada thistle (*Cirsium arvense*) and Leafy spurge (*Euphorbia esula*), are hard to uproot even with careful digging. If these weeds, which have been identified in parts of the upper East River valley, appear in town, they likely will require spot spraying with a selective herbicide to eradicate them. All listed noxious weeds can be at least temporarily controlled by mowing before seeds are set. Heavy applications of mulch over mown weeds may also help reduce their re-emergence.

Because public rights-of-way are exposed to vehicle traffic and snow plows, revegetation with any plants other than native grasses is discouraged in these locations.

Part 4. Town Elimination of Noxious Weeds in the Town Rights-of-way

Property owners - including owners of vacant or undeveloped land - will have one year, until July 1, 2010, to demonstrate an effort to eradicate listed weeds from adjacent street and alley rights-of-way. After that date, the Town will begin removing any remaining weeds that appear in these public locations, including by spraying where necessary.

Part 5. Volunteer Elimination of Noxious Weeds on Private Property

Once weeds are removed from the rights-of-way, property owners and occupants will be responsible for eradicating them from their premises as well. Because many noxious weeds drop seeds on the ground which will not sprout immediately, it may take several years for all plants to be eradicated. Therefore the Town encourages property owners to begin the process of noxious weed eradication as soon as possible. Property owners and occupants will have an additional year – until July 1, 2011 – to complete the removal of listed weeds from their property. Although pulling or digging is the preferred method, because it makes room for revegetation with drought-resistant grasses or other plants not on Colorado's noxious weed lists, some weeds will require spot spraying, as described above. Revegetation can take place after a variable period of time, depending on the chemical used. Property owners will be encouraged to purchase the minimal amount of over-the-counter selective herbicide, appropriate for targeted species, needed to eradicate weeds, and to carefully follow label directions to prevent pollution and spot spray to save surrounding plants and speed revegetation.

Part 6. Town Elimination of Noxious Weeds on Private Property

The Noxious Weed Commission for the Town of Crested Butte is the Town Council. It should provide for the administration and enforcement of the weed management program and may hire outside contractors for this purpose.

Commission members or their agents, in possession of an inspection warrant, have the right to enter upon any public or private land during reasonable business hours for the purpose of inspecting for the existence of noxious weed infestations. Entry onto private property to carry out this investigation will be permitted only upon verbal permission by the landowner or occupant or, 10 days following unanswered written notification by certified mail, and issuance of an inspection warrant for that purpose. Upon the discovery of the presence of noxious weeds on private property, the Commission has the authority to notify the landowner or occupant of the presence of noxious weeds. The notice should include the inspection date, landowner of record, property ID and weed species observed. The landowner or occupant should be advised to commence eradication of the weeds within five days and should be informed about the suggested means of eradicating them (pull and bag, mow and mulch, or spray). The notice also will describe the options for compliance:

a. eradication as described, or

b. Request for a hearing before an arbitration panel, named by the Town Council and comprising a weed management specialist, a landowner and a third person agreed to by the first two panel members. The costs of convening such a panel will be borne by the requesting landowner or occupant. The Panel's decision will be final.

In accordance with state law, if the landowner or occupant fails to comply with any notice to eradicate weeds or the decision of an arbitration panel, the Commission will assume the authority to

eradicate the weeds at the landowner's or occupant's expense after July 1, 2011 . If the landowner fails to pay the bill, the Town will pursue collections.

Commission members should be responsible for setting weed priorities each year rather than trying to address every weed each year.

Part 7. New Development and Construction Site Weed Eradication

As evidenced in the Verzuh Annexation, new development and disturbed soil are where noxious weeds often take hold before native plants. By becoming established first, noxious weeds often make it difficult for native plants to get established. Since new developments and construction sites disturb large areas of land, it is especially important that they need to address the issue of noxious weeds. Because noxious weed seeds that fall to the ground are often active for many years, the noxious weed programs on disturbed lands need to be long-term.

Recommended actions to reduce the number of noxious weeds in new development and at construction sites include the following:

a. Town codes should be modified to require both new developments and construction sites to monitor and eradicate noxious weeds for a minimum of five years after streets and utilities are accepted in new developments and after a construction site receives a Certification of Occupancy from the Building Department. A deposit or bond should be provided by contractors to ensure noxious weeds are controlled on their sites.
b. Heavy equipment used for construction sites and new development should be power washed to remove noxious weed seed prior to bringing it on site.
c. Weed matting should be used as described in Part 1 b.
d. Solarizing is an effective way of eradicating noxious weeds. Solarizing entails placing opaque or black plastic sheeting on the ground, where noxious weeds predominate. Rocks can be used to hold the plastic down. See Part 1 b.

Part 8. Ongoing Enforcement and Eradication of Noxious Weeds on Town Rights-of-way and on Private Property

An ongoing program will need to be established after the rights-of-way and private land programs described in Parts 3, 4, 5, and 6 are implemented. Ongoing enforcement should be the responsibility of Town staff, and landowners should be responsible for ongoing eradication of noxious weeds on their premises and in the surrounding rights-of-way. The education programs developed for Parts 1 and 9 should continue to be implemented over time to help new residents understand, and to remind existing residents, about the need to eradicate noxious weeds.

Part 9. Controlling Points of Sale of Noxious Weeds at Nurseries and Flower Vendors

This program should be coordinated with the efforts of other municipalities and the County. The programs described in Parts 3, 4, 5, and 6 should address purchasing noxious weeds at local retailers.

Conclusion

It can be expected to take some years to eradicate noxious weeds from town. Seeds may lie dormant for many years before sprouting, and new seeds may be introduced from surrounding county land. For this reason, though the greatest effort will be in the first several years, weed management should be an ongoing effort in the Town.

Appendix A: Species

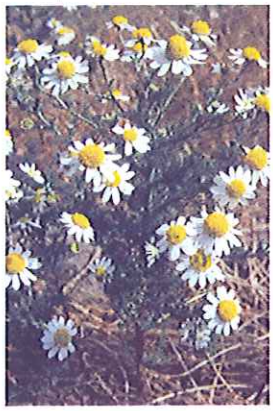
Six major noxious weed species currently grow in Crested Butte, while nine more are present in the surrounding county. Although containment, rather than eradication, is the goal for deeply entrenched weeds in large, rural areas, Crested Butte covers a small enough area that eradication of these few listed species is both feasible and desirable. Once these weeds are eradicated, the program would be simply a matter of watching for their reappearance and eradicating sporadic plants as they recur. The list may be amended as needed to include additional noxious weeds.

Priority List

1. **Chamomile** (*Asteraceae* - Sunflower family).

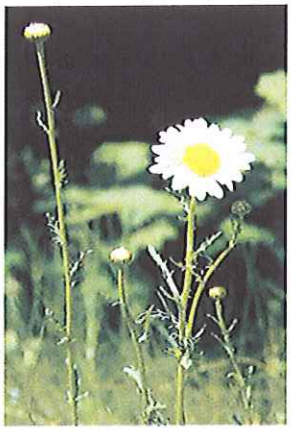
Scentless chamomile

Mayweed chamomile



The first species on the list, Chamomile, also is the easiest to eradicate. The fibrous root system of this annual forb (herbaceous flowering plant) makes it easy to pull and bag for trash disposal. The nearly identical Mayweed Chamomile (*Anthemis cotula*), whose leaves have a disagreeable odor, and the more common Scentless Chamomile (*Matricaria perforata*) are ubiquitous in town, and both are listed for eradication. Flowers May to October.

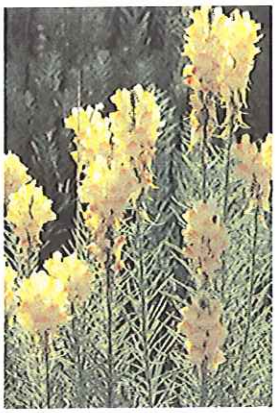
2. **Oxeye Daisy** (*Chrysanthemum leucanthemum: Asteraceae* - Sunflower family).



Easily confused with Chamomile and the desirable ornamental Shasta daisy (*Leucanthemum x superbum)*, Oxeye daisy is a perennial (lives more than two years) forb that reproduces by seeds (up to several thousand per plant) as well as underground rhizomes. Though not as easy to pull as Chamomile, Oxeye daisy's shallow root system makes it a candidate for digging, however care must be taken to dig out the entire root system. Spot spraying with a selective herbicide during the early emergent (rosette) to flower stages of growth is an effective chemical method. Heavy applications of nitrogen fertilizer also have proven effective to control this weed. Flowers June to August.

3. **Toadflax** *(Linaria:Scrophulariaceae* - Figwort family*)*.

Yellow Toadflax Dalmatian Toadflax



Perennial forbs, Yellow toadflax (*Linaria vulgaris)* and Dalmatian toadflax (*L. dalmatica & L. genistifolia*) are major problems on rangeland and forests. Yellow toadflax, also known as butter and eggs, is on the state's 10 Most Wanted list of noxious weeds. Toadflax reproduces by seed and underground rootstock, making it hard to pull and a candidate for spot spraying.

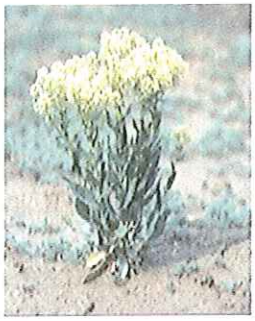
4. **Black Henbane** (*Hyoscyamus niger: Solanaceae* – Nightshade family).

A coarse, 1-3 foot tall plant with pungent leaves and lavender rosettes, Black henbane is poisonous to livestock and humans. Easy to identify with its yellow flowers and coarse, spiny and foul-smelling leaves, this weed arises commonly on disturbed land such as rights of way, fence rows and waste areas. Spraying is the most effective means of control, though the plant can be pulled when the soil is moist.

5. **Common Tansy** (*Tanacetum vulgare: Asteraceae* – Sunflower family).

This escaped ornamental, a perennial forb, reproduces from seed or root. Flowers are showy, yellow, button-like, without petals. Stems are often purplish, and leaves are deeply divided into narrow, toothed segments. Also known as garden tansy, this weed is found along rights of way, streambanks and pastures.

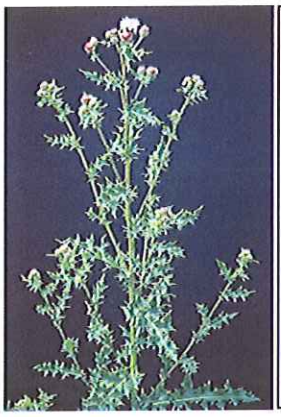
6. **Hoary Cress** (*Cardaria draba: Brassicaceae* – Mustard family).



This perennial forb, on the state's 10 Most Wanted list of noxious weeds, appears on disturbed soils such as rights-of-way. It reproduces by seed or underground shoots. Leaves are blue-green and lance-shaped, while the flowers are white with four petals. Seeds develop within heart-shaped seed capsules which must be removed by early to mid-summer to curtail dispersal. The plant also may be dug or sprayed.

Secondary List

7. **Canada Thistle** (*Cirsium arvense: Asteraceae* - Sunflower family).

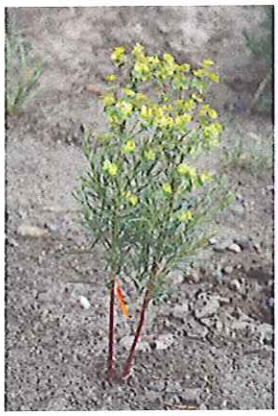


This perennial forb, also on the state's 10 Most Wanted list, is not common in town, but is found along roadways in Gunnison County and should be prevented from taking hold in town as well. Because of its aggressive nature and extensive root system, Canada thistle cannot be easily pulled and should be mowed once or twice at early bud stage, followed by a fall application of herbicide. Where mowing is not feasible, two applications of herbicide are recommended: one in early summer (pre-bud stage) and one in fall.

8. **Musk Thistle** (*Carduus nutans: Asteraceae* – Sunflower family).

Currently observed on the Robinson parcel, this biennial forb reproduces only by seed (up to 20,000 per plant) but has a corky taproot than makes it hard to pull. Seeds can lie dormant for 10 years. Severing the taproot and mowing can help control its spread, but spraying in late summer or fall may be necessary.

9. **Leafy Spurge** (*Euphorbia esula*: *Euphorbiaceae* - Spurge family).



Another aggressive weed on the state's 10 Most Wanted list, Leafy spurge has not yet reached town but has been reported as close as Riverbend. This weed has extensive and deep roots that give rise to new plants, making it very difficult to control. The plant has a milky latex that is irritating to eyes and skin and may cause blisters in foraging animals. If it becomes established it may exclude all other vegetation. Spraying is the only effective tool for eradicating Leafy spurge.

10. **Houndstongue** (*Cynoglossum officinale*: *Boraginaceae* – Borage family).

A weed that spreads by seed alone, this biennial forb now grows in the valley. Houndstongue, which is toxic to livestock, spreads quickly thanks to Velcro-like seeds that readily attach to clothing and animal fur. A long taproot makes this weed a candidate for spraying, though careful digging and bagging may work if the weed is tackled as soon as it reaches town and before it spreads. Pulling during the first year of life for each plant is encouraged since seeds will not be produced until the second year.

11. **Absinth Wormwood** (*Artemisia absinthium: Asteraceae* – Sunflower family).

Recognizable by its strong sage odor, this perennial forb dies back to the ground every year. It grows 3 to 5 feet tall and flowers in late July to August. Flowers are small, yellow and numerous. Twenty or more stems arise from a strong, two-inch taproot. Absinth wormwood reduces available forage for cattle and taints milk. Spot treatment with a selective herbicide in mid-summer has proved most effective for eradicating this weed.

12. **Dames Rocket** (*Hesperis matronalis: Brassicaceae* – Mustard family).

This biennial perennial forb is an escaped ornamental, whose success is due to its wide distribution in "wildflower" seed mixes. It reproduces by seed in May to June, and seeds may lie dormant for several years. Similar to phlox, Dames rocket flowers have four petals (phlox has five) and range in color from white to purple or red. The plant grows from 4 inches to 3 feet high. Because of its shallow, fibrous root system, this weed may be effectively pulled and bagged.

Appendix B: Useful Information Colorado Noxious Weed Act
www.michie.com/colorado/lpext.dll?f=templates&fn=main-h.htm&cp=.

Colorado Noxious Weed Lists
www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1174084048733.

Noxious Weed Management Program Brochure
www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1178305828928.

Gunnison River Watershed Integrated Weed Management Plan
Marlene Crosby, director: 970-642-7378.

Gunnison County Weed District: (970) 641-4393 or (970) 641-0044

Representative Noxious Weed Management Plans in Colorado

Gunnison County: www.gunnison.colostate.edu/agri/weeds/weed_docs/ugwiwmp.pdf.

Mt. Crested Butte: http://qcode.us/codes/mtcrestedbutte/revisions.html.

Aspen/Pitkin County: http://www.aspenpitkin.com/pdfs/depts/64/Weed_mgmt_plan.pdf.

Fort Collins: www.co.larimer.co.us/weeds/Larimercountyweedmgntplan7-2-2008.pdf.

Boulder:
www.bouldercounty.org/openspace/management_plans/mgmtplans_pdfs/weed_mgmt_plan2004.pdf.

Integrated Pest Management

Environmental Protection Agency (EPA): : http://www.epa.gov/pesticides/food/ipm.htm.

Chemical Herbicide Information

Environmental Protection Agency (EPA): http://www.epa.gov/pesticides/health/index.htm.

Pesticide Information Network: http://www.pesticideinfo.org/.

Revegetation information

Colorado State University Cooperative Extension: www.colostate.edu/outreach.aspx.
K. George Beck, Weed Science Specialist: gbeck@lamar.colostate.edu.

Colorado State Forest Service: www.csfs.colostate.edu.

Colorado Native Plant Society: www.conps.org/conps.html.

Appendix C: Five-Year Strategic Plan

Year 1

- Launch educational efforts to enlist residents' support.
- Begin the eradication of listed weeds on town rights-of-way: Property owners or occupants fronting streets are responsible for eradicating listed weeds on street-front rights-of-way; property owners or occupants fronting alleys share responsibility for eradication across alleys. Other rights-of-way and public property such as parks are the Town's responsibility.

Year 2

- Property owners have one year, until July 1, 2010, to eradicate listed weeds from adjacent street and alley rights-of-way.
- After July 1 the Town begins intensive programs to eradicate noxious weeds, including spraying any remaining weeds that appear on street and alley rights-of-way.

Year 3

- Property owners and occupants begin eradicating listed noxious weeds from their premises in year one, but intensive efforts should begin in year three. Property owners have until July 1, 2011 to complete the removal of listed weeds from their property.

Year 4

- After July 1, 2011, the Town assumes authority to eradicate remaining listed weeds from private property at property owner's expense. If the landowner fails to pay the bill, the Town will pursue collections.

Year 5 and later as needed

- Annual revision of the noxious weed list to add any state-listed species that appear in Crested Butte.
- The above timetable for property owners and occupants and the Town will restart for each new weed that may appear on the noxious weed list in an effort to eradicate all newly listed species within two years.

Appendix D: Grasses recommended for planting in Crested Butte after pulling noxious weeds.(Draft list, waiting for comments)

COMMON NAME	SCIENTIFIC NAME
BEARDLESS bluebunch	Pseudoroegneria spicata ssp. Inerme
BROME, Mountain	Bromus marginatus
FESCUE, Idaho	Festuca idahoensis
FESCUE, Thurber	Festuca thurberi
NEEDLEGRASS, Columbia	Stipa columbiana
WHEATGRASS, Wesern	Pascopyrum smithii
WHEATGRASS, Slender	Elymus trachycaulus ssp. Trachycaulus
WILDRYE, Blue	Elymus glaucus
Bluegrass, Canby	Poa canbyi

Other native plants, such as the native plants discussed in the book Wild About Wildflowers written by Kathy Darrow, can also be used for revegetation after weed eradication.