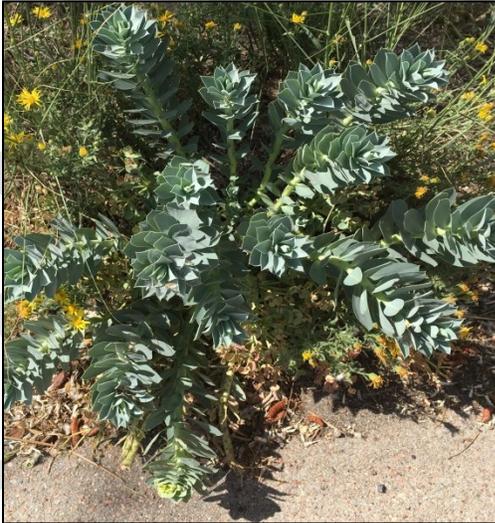
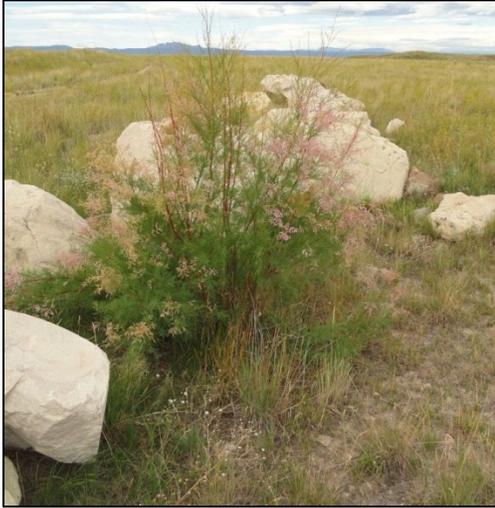




Noxious Weed Management Plan 2020



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1.0 INTRODUCTION

1.1 Background

Noxious or invasive, non-native weeds are aggressive plants that are not native to our area; most have come from Europe or Asia either accidentally or as ornamentals that have escaped. These nonnative plants are a concern for landowners and land managers for several reasons including specialized mechanisms developed for survival, rapid spread rate and an advantage over native plants because natural control measures, such as insects, diseases and animals, are not found here. Noxious weeds can quickly establish, and are difficult to eradicate, leading to issues with livestock grazing, farming, property maintenance, recreational access and general biodiversity of the native habitat. Managing noxious weeds can be accomplished by preventing the introduction of new invasive species, eradicating species with limited populations found in isolated areas or numbers and containing species that are well-established and widespread throughout Castle Rock. As noxious weeds can spread to neighboring properties, it is the responsibility of all landowners and property managers to control, manage and eradicate noxious weeds in Castle Rock.

1.2 Management Plan Goals & Objectives

The purpose of the Noxious Weed Management Plan for the Town of Castle Rock is to provide a guide for compliance with the State of Colorado Noxious Weed Act and the Town's Municipal Code. The control and reduction of non-native noxious weeds throughout Castle Rock are important and a wide range of strategies should be considered, while protecting the native plants that live among the invasive ones. Overall management priorities of this plan are as follows:

- a) Manage noxious weeds throughout Castle Rock
- b) Provide information on identification, control and management of noxious weeds found in Castle Rock
- c) Enforce the mandates of the Colorado Noxious Weed Act and Town Municipal Code
- d) Assist private landowners and general public with education and awareness of noxious weeds
- e) Develop a noxious weed advisory board

2.0 COLORADO NOXIOUS WEED ACT

2.1 State Statute and Requirements

To address the need to monitor, control and eradicate noxious weeds that pose a threat to the continued economic and environmental value of the land in the state of Colorado, the Colorado Noxious Weed Act was passed into law in July 1990 (Title 35, Article 5.5, Sections 35-5.5-104.5 to 35-5.5-118). The law requires all Colorado residents, including local land managers, to control noxious weeds using integrated methods to manage those noxious weeds. The law also states that each county and municipality in Colorado adopt a noxious weed management plan and appoint an advisory board for its jurisdiction.

The Colorado Department of Agriculture coordinates the administration of this law and the efforts of local, state and federal noxious weed managers. A state-wide noxious weed program has been developed to control noxious weeds through education and outreach activities, noxious weed identification and mapping, funding and representation through an advisory committee.

2.2 Colorado Noxious Weed List

The statewide noxious weed list identifies all weed species of concern in Colorado and are grouped for eradication (List A), containment (List B) or suppression (List C). The comprehensive statewide list of noxious weeds can be found in Appendix A. This list may be revised by the Colorado Department of Agriculture; updated statewide lists will be replaced and attached to this plan when needed. The following lists assembled from the state list highlight noxious weeds of concern in Douglas County, specifically within incorporated Castle Rock.

2.2.a List A Noxious Weeds

The following List A weed species are required to be eradicated:

African rue (*Peganum harmala*)
Bohemian knotweed (*Fallopia x bohemicum*)
Camelthorn (*Alhagi maurorum*)
Common crupina (*Crupina vulgaris*)
Cypress spurge (*Euphorbia cyparissias*)
Dyer's woad (*Isatis tinctoria*)
Elongated mustard (*Brassica elongata*)
Flowering rush (*Butomus umbellatus*)
Giant knotweed (*Fallopia sachalinensis*)
Giant reed (*Arundo donax*)
Giant salvinia (*Salvinia molesta*)
Hairy willow-herb (*Epilobium hirsutum*)
Hydrilla (*Hydrilla verticillata*)
Japanese knotweed (*Fallopia japonica*)
Meadow knapweed (*Centaurea x moncktonii*)
Mediterranean sage (*Salvia aethiopsis*)
Medusahead (*Taeniatherum caput-medusae*)
Myrtle spurge (*Euphorbia myrsinites*)
Orange hawkweed (*Hieracium aurantiacum*)
Parrotfeather (*Myriophyllum aquaticum*)
Purple loosestrife (*Lythrum salicaria*)
Rush skeletonweed (*Chondrilla juncea*)
Squarrose knapweed (*Centaurea virgata*)
Tansy ragwort (*Senecio jacobaea*)
Yellow starthistle (*Centaurea solstitialis*)

2.2.b List B Noxious Weeds

The following List B weed species are regionally rare but are designated to be eradicated:

Absinth wormwood (*Artemisia absinthium*)
Black henbane (*Hyoscyamus niger*)
Bouncingbet (*Saponaria officinalis*)
Bull thistle (*Cirsium vulgare*)
Canada thistle (*Cirsium arvense*)
Chinese clematis (*Clematis orientalis*)
Common tansy (*Tanacetum vulgare*)
Common teasel (*Dipsacus fullonum*)

Cutleaf teasel (*Dipsacus laciniatus*)
Dalmatian toadflax, broad-leaved (*Linaria dalmatica*)
Dalmatian toadflax, narrow-leaved (*Linaria genistifolia*)
Dame's rocket (*Hesperis matronalis*)
Diffuse knapweed (*Centaurea diffusa*)
Eurasian watermilfoil (*Myriophyllum spicatum*)
Hoary cress (*Cardaria draba*)
Houndstongue (*Cynoglossum officinale*)
Jointed goatgrass (*Aegilops cylindrica*)
Leafy spurge (*Euphorbia esula*)
Mayweed chamomile (*Anthemis cotula*)
Moth mullein (*Verbascum blattaria*)
Musk thistle (*Carduus nutans*)
Oxeye daisy (*Leucanthemum vulgare*)
Perennial pepperweed (*Lepidium latifolium*)
Plumeless thistle (*Carduus acanthoides*)
Russian knapweed (*Rhaponticum repens*)
Russian-olive (*Elaeagnus angustifolia*)
Salt cedar (*Tamarix. ramosissima*)
Salt cedar (*T. chinensis*)
Scentless chamomile (*Tripleurospermum inodorum*)
Scotch thistle (*Onopordum acanthium, O. tauricum*)
Spotted knapweed (*Centaurea stoebe L. ssp. micranthos*)
Spotted x diffuse knapweed hybrid (*Centaurea x psammogena*)
Sulfur cinquefoil (*Potentilla recta*)
Wild caraway (*Carum carvi*)
Yellow nutsedge (*Cyperus esculentus*)
Yellow toadflax (*Linaria vulgaris*)
Yellow x Dalmatian toadflax hybrid (*Linaria vulgaris x L. dalmatica*)
Yellow nutsedge (*Cyperus esculentus*)

2.2.c List C Noxious Weeds

The following List C weed species are common in Castle Rock but should still be controlled or cut/mowed:

Chicory (*Cichorium intybus*)
Common burdock (*Arctium minus*)
Common mullein (*Verbascum thapsus*)
Common St. Johnswort (*Hypericum perforatum*)
Downy brome (*Bromus tectorum*)
Field bindweed (*Convolvulus arvensis*)
Halogeton (*Halogeton glomeratus*)
Johnsongrass (*Sorghum halepense*)
Perennial sowthistle (*Sonchus arvensis*)
Poison hemlock (*Conium maculatum*)
Puncturevine (*Tribulus terrestris*)
Quackgrass (*Elymus repens*)

Redstem filaree (*Erodium cicutarium*)
Velvetleaf (*Abutilon theophrasti*)
Wild proso millet (*Panicum miliaceum*)

2.3 Local Regulations

As of December 2020, the Town of Castle Rock Municipal Code outlines existing requirements of all landowners within incorporated Castle Rock regarding the control and removal of noxious weeds. Chapter 8.12 does not permit or allow the growth of weeds greater than 12” in height. Property owners of parcels less than five contiguous acres are required to cut weeds to a length of 6” or less, with the exception that those larger parcels must have weeds cut within 100 feet of a structure or paved street. This chapter also outlines allowed exemptions, authorization to provide notice to comply, public notice publication and the Town’s ability to remove or cut weeds on properties in violation of this code (Ord. 85-31 §1(part), 1985).

2.4 Douglas County Regulations

The Douglas County Noxious Weed Management Plan was approved by the Board of County Commissioners of the County of Douglas by Resolution No. R-011-100 in 2011. The resolution provides policies and procedures for the establishment and administration of a noxious weed management incentive program as well as enforcement procedures to comply with the Noxious Weed Act on both public and private properties within Douglas County. Although the resolution and management plan outline procedures for County personnel to enter private property for the management of noxious weeds, compliance with the incentive program will be encouraged to be voluntary. Douglas County staff can provide property owners with consultation, formal training and technical information for proper management of noxious weeds on their properties. Any questions about the Douglas County Management Plan should be directed to the county weed manager:

Jonathan Rife, Weed and Mosquito Control Supervisor
Douglas County Public Works – Operations
PO Box 1390
Castle Rock, CO 80104
303-660-7476
jrife@douglas.co.us

3.0 MANAGEMENT OPTIONS/APPROACHES

3.1 Preventative

As it implies, this management option focuses on preventing weeds from starting or going to seed that create new infestations.

- Preventing new infestations of noxious weeds by keeping those plants from going to seed.
- Planting grasses, forbs and shrubs native to Colorado is another technique to control noxious weeds by providing competition for water, sunlight, and nutrients.
- Avoid using commercial seed mixtures unless source and mix are verifiable. Some commercial mixes may contain plant species not native to this area.
- Fertilizing and irrigating desirable plants.
- Using weed-free hay and mulch.

- Preventing livestock from overgrazing.
- Seeding and blanketing areas (with erosion control blankets) where the soil has been disturbed to establish native grasses before noxious weeds.
- Educating the public about weed identification and the need for control measures.

3.2 Eradication

This management option completely removes noxious weeds from an area. It is best used for small areas (less than 100 feet in diameter) and for List A noxious weed species. Restoration or reseeding of the target area with native seed or desirable plants is recommended to prevent future infestation.

3.3 Control

These measures disrupt the growth of noxious weeds at different growth stages such as sprouts, rosettes, roots, flowers and mature plants.

3.3.a Mechanical

Noxious weeds can be controlled by mowing, pulling, tilling, cutting, clipping, hoeing and burning (when appropriate and coordinated with all relevant agencies and jurisdictions). Pulled and cut weeds, especially Diffuse Knapweed, should be bagged for disposal. For instance, appropriately timed mowing of thistles, cheatgrass, and knapweed can effectively reduce seed production.

3.3.b Chemical

Use of herbicides is an effective control strategy for many noxious weeds but are most effective when used in conjunction with other management techniques, such as mowing or pulling. Timing and application rates are critical for increasing the effectiveness of the application. Spot spraying with herbicides is preferred over widespread boom spraying to concentrate control efforts. All herbicides must be applied following label instructions. Any herbicide applications conducted on public land, whether by Town staff or contractors, must comply with the Colorado Pesticide Applicators Act.

The following herbicides are currently used by the Town of Castle Rock Parks and Recreation Department:

- **Milestone®** is a specialty herbicide for control of knapweeds and thistle varieties. It can be used on rangeland and pastures, as well as rights-of-way and parklands.
- **Speedzone®** is a selective post-emergent broadleaf herbicide that can be used on dandelions, spurge and other weeds found in irrigated parklands from spring through fall.
- **Glyphosate** is a broad-spectrum herbicide used selectively in mulch, rock beds and hardscapes to manage weed and grass growth.

3.3.c Biological

Many insect species have been approved by the Colorado Department of Agriculture for controlling diffuse knapweed, leafy spurge and other noxious weeds, such as Knapweed Lesser Flowerhead Weevil (*Larinus minutus*) and Root Boring Weevil (*Cyphocleonus achates*). Grazing animals such as sheep and goats could also be a biological control option to reduce plant quantity. Biological controls should only be done under the direction of the Douglas County Weed Inspector.

3.4 Temporary Erosion and Sediment Control

The Stormwater Division in the Castle Rock Water Department oversees implementation of erosion and sediment control measures as a standard for all land-disturbance activities to promote environmentally sound construction practices in Castle Rock. These measures are contained within the Temporary Erosion and Sediment Control (TESC) Manual, which can be found at CRgov.com/TESC. These measures are enforced with a TESC Plan and Permit that are reviewed and approved prior to construction. In addition to effective erosion and sediment control measures, the TESC Manual includes recommended seed mixes for seeding and mulching of disturbed areas to reduce erosion and the potential for noxious weed growth.

4.0 IMPLEMENTATION

Enforcement of this management plan and its objectives will be a coordinated effort between the Town of Castle Rock, private landowners within Castle Rock and Homeowners Associations, with recommendations provided by the Colorado Noxious Weed Advisory Committee, Douglas County Noxious Weed Advisory Commission and the Castle Rock Weed Advisory Board. This management plan does not preclude the Town of Castle Rock from entering into intergovernmental agreements with other governmental entities towards managing noxious weeds under the Colorado Noxious Weed Act.

The Noxious Weed Act is a statewide law, as such, this management plan will be applicable to all private lands and properties and facilities currently owned and maintained by the Town of Castle Rock as public lands within incorporated limits of Castle Rock. In addition to public parks, open space areas, drainages, detention/retention ponds, rights-of-way and public buildings managed by the Parks and Recreation Department, Castle Rock Water and the Public Works Department, such as Town Hall and the Castle Rock Community Recreation Center; this plan is also applicable to the Red Hawk Ridge Golf Course and fire stations managed by Castle Rock Fire Department. A full list of public properties and facilities included in this plan can be found in Appendix B.

Private landowners within incorporated Castle Rock are required to abide by the Colorado Noxious Weed Act and Castle Rock Municipal Code. This applies to developed residential addresses, undeveloped lots, commercial properties, HOA managed properties and any other non-Town owned properties. It is the responsibility of the landowner to control noxious weeds on their properties. Private landowners are encouraged to submit potential violations of the state law and zoning code compliance complaints using the Town's online form, which can be submitted anonymously, through the Town's Zoning webpage found at www.CRgov.com/Zoning.

This management plan will be reviewed and updated on a consistent basis. Updates may be influenced from changes in the noxious weed species list, recommendations from the Castle Rock Weed Advisory Board, Colorado Noxious Weed Advisory Board, management control techniques, or as needed.

5.0 PUBLIC EDUCATION/OUTREACH

Public awareness and knowledge of the Colorado Noxious Weed Act as well as local and county regulations are important steps to managing, controlling and preventing noxious weeds throughout

Castle Rock. Proper identification of listed noxious weeds and understanding the damage caused by them are also needed tools in the overall management objective and implementation of the management plan. The Town will serve as a primary source of education, outreach and reference, following guidance from the state advisory board, county weed coordinator and local advisory board.

Public education and outreach can include the following measures:

- Develop a noxious weed information webpage hosted on CRgov.com.
- Create educational/informational brochure on the Noxious Weed Act and Town regulations.
- Utilize various Town publications such as Your Town Talk and Recreation Guide to highlight noxious weed awareness and management responsibilities.
- Offer free public educational meetings or classes to the general public.
- Offer free copies of prepared educational brochures at public places, including Philip S. Miller Library, Town Hall, Chamber of Commerce and Castle Rock Recreation Center.
- Meet with Homeowner Associations.
- Create interpretive signage for local parks or high-traffic areas to provide information on noxious weed identification and management techniques.
- Coordinate with the Town of Castle Rock POST Partners Volunteer Program to host noxious weed pull events on open space and trail areas.
- Create a specific noxious weed complaint form to be available on the Town's website.

There are various local organizations and online resources that provide additional information about noxious weeds and their identification, control and management, as well as native plant gardening.

- Colorado Department of Agriculture: <https://Colorado.gov/agconservation/noxiousweeds>
- Colorado Weed Management Association: <https://www.cwma.org>
- CSU Extension Office: <https://extension.colostate.edu>
- Douglas County Master Gardeners: <https://douglas.extension.colostate.edu/horticulture/master-gardener/>

6.0 EVALUATION

6.1 Short Term Goals

The following goals and objectives are directed within a 1-5 year timeframe following final approval of the management plan by the Parks and Recreation Commission and Town Council.

1. Update the Castle Rock Municipal Code to incorporate the management plan.
2. Educate the public about noxious weeds:
 - a. Develop an informational webpage for public reference
 - b. Create brochures or handouts for landowners
3. Control noxious weeds on public properties, including parks, rights of way, stormwater ponds and open space areas.
4. Work with the POST Partners Volunteer Program to remove noxious weeds on public property by volunteer groups on annual basis.
5. Develop annual monitoring protocol of weed infestations and control measures on public lands.
6. Create a Weed Advisory Board.

7. Review and update the management plan every five years or as needed based on updates to the Colorado Noxious Weed Act and Colorado Noxious Weed List.

6.2 Long Term Goals

The following goals and objectives are directed within a 5-10 year timeframe following final approval of the management plan by the Parks and Recreation Commission and Town Council.

1. Continue educating the general public regarding the identification and management of noxious weeds.
2. Conduct a review of annual monitoring and mapping inventory to determine effectiveness of various preventative and control measures to reduce weed infestations.

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