

COST-BENEFIT ANALYSIS

In performing a cost-benefit analysis, each rulemaking entity must provide the information requested for the cost-benefit analysis to be considered a good faith effort. The cost-benefit analysis must be submitted to the Office of Policy, Research and Regulatory Reform at least ten (10) days before the administrative hearing on the proposed rule and posted on your agency's web site. For all questions, please attach all underlying data that supports the statements or figures stated in this cost-benefit analysis.

DEPARTMENT: Conservation Services Division

AGENCY: Department of Agriculture

CCR: 8 CCR 1206-2

DATE: August 7, 2020

**RULE TITLE OR SUBJECT:
RULES PERTAINING TO THE ADMINISTRATION AND ENFORCEMENT
OF THE COLORADO NOXIOUS WEED ACT**

Per the provisions of 24-1-103(2.5)(a), Colorado Revised Statutes, the cost-benefit analysis must include the following:

1. The reason for the rule or amendment;

The Rules Pertaining to the Administration and Enforcement of the Colorado Noxious Weed Act at 8 CCR 1206-2 ("Rules") implement the Noxious Weed Act ("NWA" or the "Act"), the purpose of which is to "ensure that all the lands in 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." § 35-5.5-102, C.R.S. (emphasis added). The General Assembly 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." *Id.* As such, the NWA requires that the Commissioner of Agriculture "develop and implement by rule state noxious weed management plans" that "designate the management objectives for all lands of the state[.]" § 35-5.5-108, C.R.S. Local governments and municipalities implement (and may even supplement) state management plans for listed noxious weed species. §§ 35-5.5-105 and -106, C.R.S.

The Commissioner revises these plans, as necessary, to achieve the objectives of the NWA—namely, to prevent, control, or eliminate infestation of the state by listed noxious weeds. However, the Commissioner does not dictate the specific means by which various management plans must be achieved; she leaves the ultimate decision to local governments and municipalities to identify and implement the means to contain, suppress, or eradicate listed weeds (provided those options derive from a wide set of Department-approved alternatives). The NWA tasks local governing bodies with enforcement of the NWA on lands under their jurisdiction, including private lands. § 35-5.5-108.5(3)(b)(II), C.R.S. The revised Rules do not change this historic and statutorily prescribed dynamic.

In the past, the Department of Agriculture ("Department") revised plans for certain noxious weed species on a rotating annual schedule, based upon the known distribution and abundance of species named in Part 4.3 of the Rules. In practice, this meant that the Department issued revised management plans for five to seven species per year. However, in 2018, the Department implemented a new schedule wherein it would revise management plans biannually, instead of annually. As such, the number of management plans subject to revision increased to fourteen for the 2020 rulemaking session. However, this change also meant that local government entities had twice the amount of time (i.e., two years) to collect mapping data to assist in revising certain plans, thereby providing a financial cushion to spread the cost of data collection over a longer period of time than before.

To maintain the new revision cycle, the fourteen management plans revised in the Rules will not be updated until 2028 (i.e., absinth wormwood, Chinese clematis, plumeless thistle, spotted knapweed, salt cedar, black henbane, diffuse knapweed, oxeye daisy, houndstongue, leafy spurge, hoary cress, yellow nutsedge, Canada thistle, and Russian olive). And, to ensure that the next set of management plans for List B species will be timely revised in 2022, the Department will soon be collecting data from local entities on five additional List B species: common teasel, cutleaf teasel, yellow toadflax, and yellow x Dalmatian toadflax hybrid. The remainder of the changes to the Rules update typographical and grammatical errors that have no bearing on the substance of the Rules (and, as such, have no associated direct or indirect costs).

Substantively, the revised Rules include changes in management designation (i.e., suppression, eradication) for the fourteen affected species based upon where those species appear in the state. These updated management designations are science-based, as the Department relied upon the mapping data provided by counties and municipalities concerning abundance and distribution of weeds on lands under their jurisdiction when making the revisions. The Department made a considerable effort in the revised Rules to enlarge the size of many containment areas so that, consistent with the mapping

data provided by local governments, the areas accurately reflected locations with the highest densities of the target noxious weed. These containment areas are subject to a “suppression” goal, which is generally considered a less rigorous and less expensive management goal than eradication, because the weed’s presence is widespread and consistent (i.e., where it is difficult to find smaller, higher density populations of the weed). In some cases, the suppression goal has changed to eradication because mapping data demonstrated low-density, localized areas of infestation that can be specifically targeted, thereby leading to the elimination of the relevant weed species.

2. The anticipated economic benefits of the rule or amendment, which shall include economic growth, the creation of new jobs, and increased economic competitiveness;

The anticipated economic benefit of the revised Rules is the protection of the “economic and environmental value of the lands of the state” from the threat posed by uncontrolled noxious weeds. § 35-5.5-102(1), C.R.S. Specifically, the General Assembly has determined that “noxious weeds have become a threat to the natural resources of Colorado,” as noxious weeds destroy “thousands of acres of crop, rangeland, and habitat for wildlife and native plant communities.” § 35-5.5-102(1.5)(a), C.R.S. The Rule revisions protect the economic and environmental value of the infested lands (as well as those lands currently without noxious weed presence) because the revised management plans are intended to stop the propagation and spread of noxious weeds before those weeds grow out-of-control and do further damage to, for example, a community’s ecology, food production capacity, livestock health, land value, etc. In addition, in communities where local governing bodies control noxious weeds on lands under their jurisdiction, the revised management techniques may create more jobs because additional personnel could be hired to control or eradicate the listed species through hand-pulling, chemical treatment, water drawdown, or other cultural or mechanical treatment techniques approved by the Commissioner.

3. The anticipated costs of the rule or amendment, which shall include the direct costs to the government to administer the rule or amendment and the direct and indirect costs to business and other entities required to comply with the rule or amendment;

The Department does not anticipate that it will incur additional costs to administer the revised Rules because, consistent with the NWA, the Department does not serve as the primary enforcement authority for the control of noxious weeds on private lands or on other lands under the jurisdiction of local governments.

The management plan updates affect currently existing plans, and so the updates may affect the direct cost incurred by some local governments, municipalities, etc. to comply with the revised management plans. That said, such an outcome is contemplated by the NWA because the Act requires local governing bodies (all 64 counties and 300+ municipalities) to develop and maintain a noxious weed management program. §§ 35-5.5-105 and -106, C.R.S. At a minimum, these entities must develop and administer a management plan that is consistent with the state plan; appoint an advisory board; provide mapping data to the Department so that the Department can issue management plans that are accurate and scientifically defensible; and control noxious weeds on private lands and along rights-of-way under their jurisdiction. §§ 35-5.5-108 and -108.5, C.R.S. Thus, the NWA requires that local governing bodies accept considerable responsibility (including cost) for administration of an NWA-compliant program on lands under their jurisdiction.

As such, the cost to local governments to comply with the revised management plans will vary based upon the severity of the noxious weed infestation(s) in their jurisdiction; the methods chosen to reach the management goals (e.g., hand labor, chemical control, third-party contracts); the cost of living in that locality, including the cost of hiring seasonal employees; the local government’s tax base; and the amount of grant money sought and/or received from the Department for the control of noxious weeds. For example, because noxious weed infestations vary greatly—both in terms of number of weed species present and amount of acreage infested, some local entities will incur only minor costs to control noxious weeds, while others may incur larger costs to control 15-20 noxious weed species covering thousands of acres. Similarly, although one local government may employ one full-time manager compensated at an estimated \$25-\$30/hour and one seasonal individual compensated at \$10-\$20/hour to address noxious weed control, larger programs may employ multiple program staff. And, although some local governments possess considerable equipment to control noxious weeds (i.e., herbicide spray equipment mounted on pickup trucks, a number of hand tools, other wheeled vehicles), smaller entities may lack these tools on-hand and so incur costs to obtain and/or rent such equipment. The costs incurred to treat noxious weeds chemically also vary widely, based again on the number of weeds present and the acreage requiring treatment. If local governments opted to meet management goals for the fourteen affected species with herbicide treatment, herbicide applications range widely in price, from \$25-\$100 per acre, based upon the mixture of herbicide, adjuvants, dye, and other factors. Local entities may also decide to hire third parties to address weed problems, but using commercial applicators is likely a more expensive approach because it combines personnel, herbicide, transportation, and equipment costs in one or more lump payments. With respect to tree removal costs, only two tree species are designated noxious weeds: Russian olive and salt cedar. The Department recently awarded grant money to a local entity to fund the removal of over 200 acres of these trees at a cost of \$147/acre. In sum, total expenditures on county or municipal noxious weed control programs to meet the management goals for the fourteen affected species are difficult to quantify, as those costs are ultimately

determined by the county commissioners or the municipality; the financial health of the relevant local government entity; and unique on-the-ground conditions.

Even if costs to reach management objectives for some of the fourteen affected species increase (whether marginally or more), this cost reflects a desirable and cost-effective re-targeting of resources on real-time populations of the highest-priority weeds. Specifically, the change in management plans focuses resources away from where the weeds once were to where the populations are, as some weed populations remain static while others have spread considerably. As such, achievement of the management goals for these high-priority species will halt the continued spread—if not ultimate elimination of—invasive species that threaten the economic well-being of communities and their ecologies. The Department expects that the net effect of the revised Rules will be to save the state and localities considerable expense by focusing scarce resources more efficiently and by addressing weed presence before such presence becomes unwieldy.

There may also be a cost to local governments and municipalities associated with collection of data on the noxious weed species listed in Part 4.3 of the Rules. However, this cost is not new, as local governments have been providing mapping and occurrence data to the Department for years, and the cost associated with that collection and reporting has dramatically decreased over time. Specifically, the cost to collect this data includes mapping hardware and software, which at one point exceeded \$1,000 per unit for counties who relied on Trimble GPS/GIS mapping products. However, mapping hardware and software have come of age in the last few years, with data reporting now made possible on free, open-source smartphone applications that require no cost on the part of local governments. And, for counties that prefer to use Trimble-type units and/or software that collects pesticide use data in addition to weed mapping, as opposed to the free smartphone weed mapping applications, the Department has viewed (and continues to view) costs associated with mapping software and hardware as an eligible expense for grant proposals from local governments. Thus, although there may be a cost for some local government entities to collect and maintain data, this cost is necessary to meet the NWA's objective: control of noxious weeds in specific, infested areas of the state. Because these mapping technologies are not new and because they have increased in availability and efficacy over time, the Department expects the cost to late-adopters of such technologies to be nominal, particularly given that such costs are eligible to be covered in whole or in part by grants issued by the Department and because many of the technologies are now available for free.

With respect to indirect costs to business and other entities required to comply with the revised Rules, the Department does not anticipate any such costs. Businesses and other entities (i.e., private landowners) are already required to control noxious weeds, as the duty to manage noxious weeds is “the duty of all persons[.]” including private landowners, other state agencies or bodies, and local governing bodies. § 35-5.5-104, C.R.S.

4. Any adverse effects on the economy, consumers, private markets, small businesses, job creation, and economic competitiveness; and

There should be no adverse effects on local governments or their constituents from the revised Rules because the Rules are intended to prevent the degradation in aesthetic and financial value of lands infested with or threatened by listed noxious weeds. In addition, the cost to comply with identified management objectives is not immediate; it will be spread over an eight-year period for the revised management plans. This eight-year period provides an economic buffer to affected communities, such that the cost to manage noxious weeds is not felt immediately, particularly at a time when economies are suffering from a pandemic-induced downturn.

Moreover, the revised Rules do not change the regulatory framework that has existed since the passing of the NWA. In other words, enforcement of the NWA on private lands by local governing bodies or municipalities presents no greater risk or burden than it did before the passing of the revised Rules, as the statute has always mandated the control of noxious weeds by local governing bodies and municipalities on private lands (either directly or indirectly by the affected landowner).

Nor do the revised Rules prevent local governing bodies from recouping the costs that they incur to control noxious weeds on private lands, as the NWA still grants local governing bodies the authority to assess the whole cost of eradication and other incidental costs associated with eradication on the tract of land where the noxious weeds are located. § 35-5.5-108.5(9)(a)(II)(A), C.R.S.

Lastly, the revised Rules will not adversely affect a local governing body's ability to apply for or receive grant money pursuant to section 35-5.5-116, C.R.S., from the Department in order to assist that local governing body control noxious weeds. In other words, the revised Rules do not change the process by which a local entity may request financial assistance in the form of grant money from the Department, the ultimate award determined by “identified benefits to the citizens of Colorado, the surrounding community, and the affected landowners.” § 35-5.5-108.5(2)(b)(II), C.R.S. In fact, in recent years during the annual, competitive grant process, the Department has made over \$800,000 available to applying entities for noxious weed control projects,

including on-the-ground treatment/control, seasonal positions (\$12,500 per seasonal employee), purchase of a GPS unit or laptop (up to \$800), and/or the seasonal cost of smartphones (\$250).

5. At least two alternatives to the proposed rule or amendment that can be identified by the submitting agency or a member of the public, including the costs and benefits of pursuing each of the alternatives identified.

Alternative No. 1

Instead of revising the Rules, the Department could maintain the *status quo* with respect to noxious weed management plans, containment areas, and management objectives. In other words, the containment boundaries, management goals, and management techniques would not change from those promulgated in 2018, the last time the Department updated the Rules. This would address concerns from certain counties about the alleged financial burden the revised Rules pose to those counties.

However, this alternative fails to fulfill the objective and statutory mandate of the NWA. It does not protect cropland, rangeland, local communities, native habitats, or property values in the state from degradation associated with the presence and spread of noxious weeds. Specifically, because such an alternative fails to consider new data collected on fourteen species of listed weeds, the spread of and infestation by those weeds will go unaddressed, worsening the infestation in affected counties and threatening infestation of counties that currently lack the relevant weed species. In fact, the cost to control some noxious weed species can increase as much as 15% to 20% per year if the presence of those weeds is not timely addressed in the first place. See *Celestine Duncan, Invasive Plants of Range and Wildlands, and their environmental, economic and societal impact, 2005*; and *Richard Sheley, Biology and Management of Noxious Rangeland Weeds, 1999*.

As such, this “no action” alternative will likely result in an increased cost to address the infestation later, as infestation will worsen over time. The spread and concentration of noxious weeds will negatively impact those counties/municipalities already suffering from the weeds’ presence, as well as those counties/municipalities that now must contend with an infestation that could have been prevented using the management techniques and goals set forth in the revised Rules.

Alternative No. 2

Instead of revising both containment boundaries and management objectives simultaneously, the Department could maintain the *status quo* with respect to containment boundaries. This would address stakeholder concerns that the land areas identified by the Department are cost-prohibitive and too large to be effective.

However, for the same reasons as described in response to Alternative No. 1, this alternative fails to fulfill the objective and statutory mandate of the NWA and will likely result in an increased cost to address the infestation later, as infestation will worsen over time.

In addition, the updated containment areas in the revised Rules are based on sound science, following the Department’s collection of data on abundance and concentration of infestation. If the Department ignored such data and maintained the current containment boundaries, the containment area boundaries would not be supported by scientific or empirical evidence. Nor would the containment boundaries be consistent with the NWA, as species are included on the noxious weed lists based in part upon “the known distribution of the designated species.” § 35-5.5-108, C.R.S. If the Department opted against revising the containment boundaries in the Rule amendments, the boundaries would no longer match the known distribution of the species, and the containment boundaries would seem unreasonable in the face of data showing that those boundaries should be modified in order to encompass the presence of noxious weeds in a given area.