



Fiscal Note for 15A NCAC 10A .1501 - Replacement Costs

Rule Amendments: 15A NCAC 10A .1501 Replacement Costs

Agency Contact: Ashley Pekrul
Regulatory Analyst
NC Wildlife Resources Commission
1751 Varsity Drive, Raleigh, NC
919-707-0014
ashley.pekrul@ncwildlife.org

Impact: State Government: Yes
Local Government: No
Private Impact: Yes
Substantial Economic Impact: No

Authority: G.S. 113-134; 113-267

BACKGROUND

The wildlife resources of the State belong to the people of the State, including the enjoyment of these resources (G.S. 113-131(a)). The Wildlife Resources Commission (hereinafter WRC or Commission) is tasked with the conservation of wildlife resources of the State (G.S. 143-239). This responsibility includes managing as equitably as possible the various competing interests regarding these resources, including the use and take of such resources (G.S. 113-131.1(a)). The statutes governing wildlife resources are found in Chapter 113, Subchapter IV of the General Statutes, and WRC has been granted rulemaking authority to implement the provisions of these statutes (G.S. 113-134). In accordance with the supply of wildlife and other factors it determines to be of public importance, the WRC may fix seasons and bag limits upon the wild animals and wild birds authorized to be taken that it deems necessary or desirable in the interests of the conservation of wildlife resources (G.S. 113.291.2(a)).

REASON FOR RULE CHANGE

Current rules assign replacement costs to various wildlife and fish species. The purpose of replacement costs are to help deter illegal take and sale of wildlife. The replacement costs in rule have not been re-evaluated since 2002. In the past 20 years, some species listed with a high replacement cost have become more abundant on the landscape while others have become less. Additionally, the market for certain reptiles and amphibians, not currently included in the replacement cost rules has grown, requiring their inclusion in rule.

Proposed rule text is included in Appendix A and is expected to have both a state and private impact.

PROPOSED RULE CHANGE

15A NCAC 10A .1501 REPLACEMENT COSTS

This proposed rule change combines wildlife and fish replacement cost rules into one rule (10B .0117 and 10C .0215 proposed for repeal). Several species of ducks, rails, and reptiles have been added, and nutria and wild boar have been removed. Replacement costs for various fish have been converted from a per pound cost to a per-inch or per fish cost based on American Fisheries Society (AFS) recommendations and WRC fish hatchery production costs.

Replacement costs for all species were evaluated based on whether the species has a season for take, is classified as endangered, threatened, or special concern, the relative frequency of occurrence in the State, the extent of suitable habitat for the species, the cost of acquiring lands and waters for habitat development, the cost of maintaining habitat, the availability of replacement specimens, the consumer price index, and any other factor that gives value to a species. Most replacement costs were retained from 10B .0117 when transferred to this proposed rule.

Season of take was added as a justification for replacement costs because if a species has no closed season, the replacement value of that species would be considered lower. Any other factor that gives value to the species is in reference to G.S. 113-267 that states replacement costs must be broadly construed to include “other recognizable conservation techniques when direct stocking or replacement is not feasible”.

The replacement cost of fin fish, mollusks and crustaceans were calculated from regional costs provided in the 2017 AFS Investigation and Monetary Values of Fish and Freshwater Mollusk Kills guide by Southwick and Loftus¹. Not all NC fish species had southeast regional values, so the nationwide values for all species were used to maintain consistency. In this publication, costs are typically based on the size of the fish with a larger fish having a higher replacement cost. Costs are reported on a per inch basis until a certain size when it switches to per pound. Staff biologists were consulted to determine the maximum size of fish in North Carolina, and those lengths, in conjunction with the Southwick and Loftus (2017) values, were used to determine the cost per fish based on average cost per inch. This was the method used for most fish species.

Values for fish species typically caught in large quantities were calculated on a per fish basis. Per-fish values were determined by taking the average of all size costs of fish likely to be caught.

¹ Southwick, R. I., and A. J. Loftus, editors. 2017. Investigation and monetary values of fish and freshwater mollusk kills. American Fisheries Society, Special Publication 35, Bethesda, Maryland.

For mussels, the cost was calculated using the AFS costs for all listed individuals. The average price points for mussels found in North Carolina were used in the rule (\$50.54/mussel).

Most replacement costs for mammals are proposed to remain the same except for specific species of duck and rail, grouse, quail, and woodcock. These species have been raised to \$125 from \$41, \$37, \$37, \$30, and \$25 respectively. American black duck, canvasback, gadwall, long-tailed duck, white-winged duck, clapper, king, and Virginia rail were specifically identified, as these species are harder to replace due to their status as species of greatest conservation need (SGCN)². Grouse, quail, and woodcock are also a part of the SGCN and the cost for those was also set at \$125.

The replacement cost for wild turkey is currently \$1,617 in rule. The proposed cost is \$525 because this species has been restored on the landscape.

The special concern species category was added to complement the endangered and threatened species category at \$3,000. Special concern listed species are difficult to replace but not as challenging as endangered (\$4,960) or threatened (\$4,313) species.

Reptiles are a new addition to the proposed replacement cost rule. Reptiles were added because of their high resale value and predominance in the illegal pet trade. The reptiles listed, including scarlet kingsnake, coastal plain milksnake, eastern milksnake, eastern hognose snake, eastern box turtle, and spotted turtle are all high value species in the online pet trade, their value ranging from \$15 to \$200. The replacement costs proposed in the rule were evaluated by wildlife enforcement under the assumption that these values would be considered reasonable replacement costs in court.

Nutria and wild boar were removed due to their abundance on the landscape and there are no restrictions on take for these species.

Impacts & Benefits

Private Impact: Costs and benefits from new or higher replacement costs

Because of the way replacement costs are developed, the value for different species varies greatly. With the addition of species to the rule, illegal take of those animals now has an associated replacement cost. Additionally, because some replacement costs are proposed to increase, illegal take of those species could now carry a larger fine, though replacement costs are still up to the discretion of the court.

Logic suggests that assigning costs to species may help to deter illegal take and sale of fish and wildlife species, though enforcement and court decisions, market factors, and personal risk tolerances also play a role

To illustrate, the replacement costs for reptiles, whose illegal trade is rampant, now range from \$100 to \$200 per individual, up from \$54 for any reptile outside of the threatened species category. However, it is rare that the Commission has been afforded replacement costs due to the

² North Carolina Wildlife Resources Commission. 2015. North Carolina Wildlife Action Plan. Raleigh, NC.

court's opinion of snakes and reptiles. The agency does not foresee a large increase in individuals being required to pay replacement costs except in over the limit cases. The agency does not have record of how many replacement costs were awarded for reptiles and thus cannot estimate new and additional costs to individuals.

The efficacy of the penalties also depends on awareness among the regulated community. Most hunters and anglers are likely aware of replacement costs. If this is an offenders first illegal take that would cause them to be charged for replacement costs, a law enforcement officer may only issue a warning, especially if the species is one that was newly added to the list. The assumption is that within a years' time the regulated public will be aware of these changes. Law enforcement aided in the creation of these replacement costs to what they believed the court would most likely award.

Private Impact: Savings from lower or eliminated replacement costs

The bag limit for wild turkey is two per person per season. Because of this, illegal take is common. Fortunately, this species has been restored in North Carolina, and due to this, the associated replacement cost is proposed to decrease from \$1,617 to \$525. This reduction could be a cost savings to individuals. In the past 5 years, there has been an average of 164 turkeys taken illegally per year. We do not have data about the penalties assessed with these violations.

Additionally, the proposed removal of nutria and wild boar from the rule will remove the cost associated with illegal take of these species.

State Impact

The NCWRC has been awarded, on average, replacement costs for 104 species per year. This totals approximately \$51,312 per year. While the agency does not have data on species for which the replacement costs were awarded, the assumption that this monetary amount may increase can be made.

Local Impact

There are no local impacts expected.

Appendix A

1 **15A NCAC 10A .1502 REPLACEMENT COSTS OF WILDLIFE**

2 (a) For the purpose of this Rule, “replacement cost” means the monetary amount to replace a specimen of wildlife that
3 has been taken, injured, removed, harmfully altered, damaged, or destroyed. As specified in G.S. 113-267, this term
4 shall be broadly construed to include indirect costs of replacement if direct stocking or replacement is not feasible,
5 including the costs of habitat improvement or restoration, the establishment of sanctuaries, and any other recognized
6 conservation technique.

7 (b) The following factors shall be considered when determining replacement costs:

- 8 (1) whether the species has a season for take;
- 9 (2) whether the species is classified as endangered, threatened, or special concern;
- 10 (3) the relative frequency of species occurrence in the State;
- 11 (4) the extent of existing suitable habitat for the species within the State;
- 12 (5) the unique habitat requirements of the species;
- 13 (6) the cost of acquiring, by purchase or long-term lease, lands and waters for habitat development;
- 14 (7) the cost of improving and maintaining suitable habitat for the species on lands and waters owned or
15 acquired;
- 16 (8) the cost of live-trapping the species in areas of adequate populations and transplanting them to areas
17 of suitable habitat with low populations;
- 18 (9) the availability of replacement specimens and the cost of acquisition for restocking species in the
19 wild;
- 20 (10) the cost of propagating and rearing the species in captivity or a hatchery and the cost of transporting
21 them to an area with suitable habitat;
- 22 (11) the ratio between the natural life expectancy of the species and the period of its probable survival in
23 the wild when having been reared in captivity;
- 24 (12) the consumer price index; and
- 25 (13) any other factor that gives value to the species.

26 (c) Based on the factors in Paragraph (b) of this Rule, the following scheduled amounts shall represent the estimated
27 replacement cost of an individual wildlife specimen. Replacement costs are per individual for wildlife species and per
28 inch for fish species unless otherwise noted:

30	<u>Species</u>	<u>Replacement Cost</u>
31		
32	<u>Birds</u>	
33	<u>Crow</u>	<u>4.00</u>
34	<u>Dove</u>	<u>13.00</u>
35	<u>Duck</u>	
36	<u>American black duck</u>	<u>125.00</u>
37	<u>Canvasback</u>	<u>125.00</u>

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1	<u>Gadwall</u>	<u>125.00</u>
2	<u>Long-tailed duck</u>	<u>125.00</u>
3	<u>White-winged scoter</u>	<u>125.00</u>
4	<u>All other ducks</u>	<u>41.00</u>
5	<u>Goose (includes Brant and Snow)</u>	<u>125.00</u>
6	<u>Grouse</u>	<u>125.00</u>
7	<u>Pheasant</u>	<u>37.00</u>
8	<u>Quail</u>	<u>125.00</u>
9	<u>Rail</u>	
10	<u>Clapper, king, and Virginia</u>	<u>125.00</u>
11	<u>Coot, Gallinule, Moorhen, and Sora</u>	<u>37.00</u>
12	<u>Snipe</u>	<u>26.00</u>
13	<u>Swan, tundra</u>	<u>1078.00</u>
14	<u>Woodcock</u>	<u>125.00</u>
15	<u>Big Game</u>	
16	<u>Bear, black</u>	<u>2232.00</u>
17	<u>Deer</u>	<u>602.00</u>
18	<u>Turkey, wild</u>	<u>525.00</u>
19		
20	<u>Small Game</u>	
21	<u>Beaver</u>	<u>104.00</u>
22	<u>Bobcat</u>	<u>647.00</u>
23	<u>Fox</u>	<u>88.00</u>
24	<u>Mink</u>	<u>75.00</u>
25	<u>Muskrat</u>	<u>19.00</u>
26	<u>Opossum</u>	<u>6.00</u>
27	<u>Otter</u>	<u>647.00</u>
28	<u>Rabbit</u>	<u>13.00</u>
29	<u>Raccoon</u>	<u>58.00</u>
30	<u>Skunk</u>	<u>19.00</u>
31	<u>Squirrel, fox</u>	<u>54.00</u>
32	<u>Squirrel, gray and red</u>	<u>17.00</u>
33	<u>Weasel</u>	<u>11.00</u>
34	<u>Reptiles</u>	
35	<u>Kingsnake, scarlet</u>	<u>100.00</u>
36	<u>Milksnake, coastal plain</u>	<u>200.00</u>
37	<u>Milksnake, eastern</u>	<u>100.00</u>

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1	<u>Snake, eastern hognose</u>	<u>100.00</u>
2	<u>Turtle, eastern box</u>	<u>150.00</u>
3	<u>Turtle, spotted</u>	<u>150.00</u>
4		
5	<u>Elk</u>	<u>2500.00</u>
6	<u>Any other species with no open season</u>	<u>54.00</u>
7		
8	<u>Endangered Species</u>	<u>4960.00</u>
9	<u>Threatened Species</u>	<u>4313.00</u>
10	<u>Special Concern Species</u>	<u>3000.00</u>
11		
12	<u>Fish Species</u>	
13		
14	<u>Bass</u>	
15	<u>Alabama Bass</u>	<u>0.80</u>
16	<u>Hybrid (Bodie) Bass</u>	<u>1.27</u>
17	<u>Largemouth Bass</u>	<u>0.80</u>
18	<u>Redeye Bass</u>	<u>0.80</u>
19	<u>Smallmouth Bass</u>	<u>2.34</u>
20	<u>Spotted Bass</u>	<u>0.80</u>
21	<u>Striped Bass</u>	<u>1.27</u>
22	<u>White</u>	<u>0.25</u>
23	<u>Bullhead</u>	
24	<u>Black Bullhead</u>	<u>1.72/fish</u>
25	<u>Brown Bullhead</u>	<u>1.72/fish</u>
26	<u>Flat Bullhead</u>	<u>1.72/fish</u>
27	<u>Snail Bullhead</u>	<u>1.72/fish</u>
28	<u>Yellow Bullhead</u>	<u>1.72/fish</u>
29	<u>Catfish</u>	
30	<u>Blue Catfish</u>	<u>0.61</u>
31	<u>Channel Catfish</u>	<u>0.61</u>
32	<u>Flathead Catfish</u>	<u>0.61</u>
33	<u>White Catfish</u>	<u>0.61</u>
34	<u>Crappie</u>	<u>0.48</u>
35	<u>Kokanee Salmon</u>	<u>0.71</u>
36	<u>Muskellunge</u>	<u>9.99</u>
37	<u>Pickerel</u>	

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1	<u>Chain Pickerel</u>	<u>0.99</u>
2	<u>Redfin Pickerel</u>	<u>0.99</u>
3	<u>Sauger</u>	<u>0.92</u>
4	<u>Shad</u>	
5	<u>American Shad</u>	<u>1.40/fish</u>
6	<u>Hickory Shad</u>	<u>1.40/fish</u>
7	<u>Sunfish</u>	
8	<u>Bluegill Sunfish</u>	<u>2.65/fish</u>
9	<u>Flier Sunfish</u>	<u>2.65/fish</u>
10	<u>Green Sunfish</u>	<u>2.65/fish</u>
11	<u>Pumpkinseed Sunfish</u>	<u>2.65/fish</u>
12	<u>Redbreast (Robin)</u>	<u>2.65/fish</u>
13	<u>Redear (Shellracer)</u>	<u>2.65/fish</u>
14	<u>Roanoke Bass</u>	<u>2.65/fish</u>
15	<u>Rock Bass Sunfish</u>	<u>2.65/fish</u>
16	<u>Warmouth Sunfish</u>	<u>2.65/fish</u>
17	<u>Trout</u>	
18	<u>Brook Trout</u>	<u>0.71</u>
19	<u>Brown Trout</u>	<u>0.71</u>
20	<u>Rainbow Trout</u>	<u>0.71</u>
21	<u>Walleye</u>	<u>0.92</u>
22	<u>White Perch</u>	<u>0.25</u>
23	<u>Yellow Perch</u>	<u>0.92</u>
24		
25	<u>All other game fish</u>	<u>0.76/fish</u>
26	<u>All other nongame fish</u>	<u>1.87/fish</u>
27		
28	<u>Endangered, Threatened, Special Concern</u>	
29	<u>Mussels</u>	<u>50.54/mussel</u>
30	<u>Crayfish</u>	<u>50.00/crayfish</u>
31	<u>Finfish</u>	<u>157.54/fish</u>

32 (d) The following factors shall be considered when determining the costs of an investigation conducted pursuant to
 33 G.S. 143-215.3(a)(7) or by court order for the purpose of determining the cost of replacement of wildlife:

34 (1) the time expended by the employee(s) conducting or involved in the investigation, including travel
 35 time between the place of usual employment and the site of the investigation, and the time required
 36 in formulating and rendering the report;

Appendix A

- 1 (2) the total compensation cost of service to the state for each employee involved, including annual
 - 2 salary, total insurance, and the state's contribution to social security taxes and to the applicable
 - 3 retirement system;
 - 4 (3) subsistence costs for the investigating personnel, including meals, reasonable gratuities, and
 - 5 lodging, when required;
 - 6 (4) the cost of all necessary transportation;
 - 7 (5) the use or rental equipment or vehicles, when required;
 - 8 (6) the cost of cleaning, repairing, or replacing any clothing damaged, soiled, or contaminated by
 - 9 conducting the investigation; and
 - 10 (7) any other expense directly related to and necessitated by the investigation.
- 11 (e) In assessing the cost of time expended in completing the investigation, the time expended by each person
- 12 required to take part in the investigation shall be recorded in hours, the value of which shall be computed according
- 13 to the ratio between the annual costs of service of the employee and his or her total annual working hours (2087
- 14 hours reduced by holidays, annual leave entitlement, and earned sick leave). Other costs shall be assessed as
- 15 follows:
- 16 (1) the actual cost of meals, reasonable gratuities, and lodging away from home, not to exceed the
 - 17 current maximum per diem for state employees at the time of the investigation;
 - 18 (2) total mileage by motor vehicle multiplied by:
 - 19 (A) the then current rate per mile for travel by state-owned vehicle; or
 - 20 (B) the then current rate per mile for travel by privately owned vehicle, if
 - 21 applicable;
 - 22 (3) ten dollars (\$10.00) per hour for boat and motor use;
 - 23 (4) uniform and clothing cleaning and repair cost; and
 - 24 (5) any other expense directly related to and necessitated by the investigation.

26 History Note: Authority G.S. 113-134; 113-267.

27

Appendix A

1 15A NCAC 10B .0117 is proposed for repeal as follows:

2

3 **15A NCAC 10B .0117 REPLACEMENT COSTS OF WILDLIFE RESOURCES**

4

5 *History Note: Authority G.S. 113-134; 113-267;*

6 *Eff. October 1, 1980;*

7 *Amended Eff. August 1, 2002; December 1, 1993; October 1, 1989.*

8 *Repealed Eff. September 1, 2022.*

9

10

11 15A NCAC 10C .0215 is proposed for repeal as follows:

12

13 **15A NCAC 10C .0215 REPLACEMENT COSTS OF WILDLIFE RESOURCES - FISH**

14

15 *History Note: Authority G.S. 113-134; 113-267;*

16 *Eff. December 1, 1993.*

17 *Repealed Eff. September 1, 2022.*