

1 A JOINT RESOLUTION directing the Transportation Cabinet to study the
2 environmental impact of the use of road salt on Kentucky highways and the costs and
3 benefits of using salt alternatives.

4 WHEREAS, road crews in the United States first began treating wintery roads with
5 sodium chloride, known colloquially as road salt, in 1938; and

6 WHEREAS, for the first few winter seasons of use, an average of 5,000 tons of
7 sodium chloride was spread across roadways nationwide; and

8 WHEREAS, this figure has ballooned at a staggering rate, with the average winter
9 season now seeing an upwards of 20 million tons of sodium chloride used on our nation's
10 roads; and

11 WHEREAS, the Kentucky Transportation Cabinet estimates that the
12 Commonwealth uses approximately 500 million pounds of sodium chloride for road
13 treatment per winter season, averaging to over 100 pounds of salt per citizen; and

14 WHEREAS, when spread in excess quantities, sodium chloride has a devastating
15 corrosive effect on both vehicles and roadway surfaces, resulting in an estimated \$5
16 billion in annual repairs nationwide; and

17 WHEREAS, excess quantities of sodium chloride lead to high sodium levels in
18 water runoff, which can infiltrate nearby water reservoirs, raising sodium concentration
19 to toxic levels for plants, some wildlife, and even humans; and

20 WHEREAS, high concentrations of sodium in water runoff injures nearby
21 vegetation and contaminates water used by farmers to maintain crop yields, markedly
22 stunting the potential of harvests; and

23 WHEREAS, some environmental researchers estimate that within two generations,
24 if the current sodium chloride usage rate continues, the sodium concentration of many
25 drinking water sources could become too toxic for human consumption; and

26 WHEREAS, in response to these environmental concerns, some state legislatures
27 have enacted legislation exploring the logistics of sodium chloride alternatives for

1 roadway or alternative methods of laying sodium chloride that reduce its usage without
2 compromising motorist safety; and

3 WHEREAS, state legislature-led initiatives have varied in their conclusions and
4 implementations, as the most common alternatives widely differ in their efficacy and
5 states have individual needs based on their climate; and

6 WHEREAS, no legislative body has yet introduced a treatment plan that entirely
7 replaces sodium chloride, as the most widely used alternatives have had specific use
8 cases, but usage of alternatives in combination with "smart salting" plans to reduce
9 overall usage has shown promise; and

10 WHEREAS, Kentucky road crews already successfully utilize alternative deicing
11 substances like brine and calcium chloride in conjunction with sodium chloride; and

12 WHEREAS, remembering that navigable roads are essential in keeping the
13 Commonwealth's economy going during the winter but also acknowledging the new
14 environmental research, it is prudent that a dedicated inquiry into current methods be
15 conducted; and

16 WHEREAS, the Commonwealth has not conducted an adequately thorough study
17 of the environmental consequences of sodium chloride, potential mitigation strategies, or
18 alternative methods for deicing while still fulfilling the Commonwealth's travel needs;

19 NOW, THEREFORE,

20 ***Be it resolved by the General Assembly of the Commonwealth of Kentucky:***

21 ➔Section 1. The Transportation Cabinet is directed to study the environmental
22 consequences of roadway sodium chloride usage, and the cost and benefits of exploring
23 alternative methods of deicing.

24 ➔Section 2. At a minimum, the study shall:

25 (1) Determine current average roadway sodium chloride usage across the
26 Commonwealth;

27 (2) Analyze the environmental effects of varying amounts of sodium chloride

1 usage for the nearby human population, wildlife, livestock, vegetation, and crop yields;

2 (3) Evaluate the damage caused by the use of road salt on the longevity and
3 health of bridges, roads, signage, and other constructions that make up transportation
4 infrastructure;

5 (4) Evaluate effectiveness of various alternative strategies to clear snow and ice
6 from roadways;

7 (5) Evaluate the financial costs and benefits of various alternative strategies to
8 clear snow and ice from roadways;

9 (6) Evaluate the environmental impact of various alternative strategies to clear
10 snow and ice from roadways; and

11 (7) Provide a recommendation to the General Assembly for changes in the
12 Transportation Cabinet's deicing strategy.

13 ➔Section 3. The Transportation Cabinet shall submit the findings of this study to
14 the Legislative Research Commission by December 1, 2025, for referral to the Interim
15 Joint Committee on Transportation.