

Alternatives and Environmental Impacts of Road De-icers

1 WHEREAS, Sodium chloride, cinders, and other de-icers are used every winter on Missouri roads;

2 AND WHEREAS, Concentrations of chloride begin causing negative changes in reproduction among

3 aquatic organisms at 230 parts per million (ppm);

4 AND WHEREAS, Chloride concentrations above 860 ppm are lethal for many freshwater organisms;

5 AND WHEREAS, Over application of deicers impacts soil salinity and can affect growth and survival

6 of plant species;

7 AND WHEREAS, De-icing salts and chemicals cause corrosion to concrete and metal including the

8 exterior of automobiles;

9 AND WHEREAS, Alternative ice melts are being developed that are more environmentally friendly

10 such as sugar beet juice and corn based Biomelt as used in the Springfield and Kansas City metropolitan

11 areas;

12 AND WHEREAS, Sugar beet juice when combined with salt effectively melts ice at significantly lower

13 temperatures than salt alone;

14 AND WHEREAS, Sugar beet juice salt mixture diminishes the corrosiveness of salt by 53%;

15 AND WHEREAS, Sugar beet juice is an effective de-icer for longer than salt alone;

16 AND WHEREAS, Biomelt use may stimulate the agricultural sector of the economy by providing

17 farmers new crops to grow;

18 AND WHEREAS, Biomelt while currently more expensive per gallon than salts, has potential to lower

19 application costs.

20 NOW, THEREFORE, BE IT RESOLVED that the Conservation Federation of Missouri assembled at

21 the Lodge of Four Seasons, Lake Ozark, MO, this 27th day of February, 2010 Urges local Missouri

22 governments and the Missouri Department of Transportation to continue to research and implement

23 more environmentally-friendly de-icers on Missouri roads.