Greetings -

I am writing to suggest a possible (simple) example of what might prove to be an application of HACCP principles to the problem of road salts in our streams and rivers. As mentioned in the emails below, this is a significant problem apparently, and there is at least one conceptual 'roadmap' toward developing an effective solution.

Here I suggest a combination of three proposals which, though would take some serious thinking through and coordination, would possibly be helpful.

1) the establishment of RPA (Resource Protection Area) like 'zones' or boundaries where roads either traverse or come close to streams or rivers.Descending slopes would be given wider zones, considering that any ice or snow melt would flow off toward a stream or river more quickly. "Crossing Protection Areas" or Zones.

2) Modified plowing practices either in the full extent of these zones, or, in narrower sub-zones, e.g. across bridges or crossings and to a given extent beyond, in a manner which the plows would first plow snow (and presumably any spread electrolytes) toward the middle of the crossing, and then by some means (plowing) either push/plow said pile to a certain distance or boundary from the crossing, or, given crossing load (weight) restrictions, utilize an inner lane area to store the pile until it can be later removed. Though use of a lane may restrict traffic in certain areas, this may be not as much an issue as it might at first seem, given that during heavy snows at times only one lane is plowed anyway and traffic tends to be light. In addition, restricting plowing & treatment to one lane within such 'Crossing Protection Areas' would mean that electrolyte application could be halved to one lane, at least within said 'CPA', with the other lane being used as storage. In heavy snow events, where it would be difficult to keep up with clearing mixed snow/electrolyte piles from the inner lanes(s) during the snowfall, this work could be done later.

3) Lastly, the available mixes of electrolytes which tend to cause less toxic load on waterways, could be preferentially used within such boundaries, especially if cost is an issue, or, otherwise, if they are less expensive and more available, exclusively.

I realize that perhaps you are working already on some of these considerations, and that there are many constraints, etc., on the decisions that yourself and VDOT, for example, make.

Just wanting to add my two cents in case it might prove helpful.

Regards,

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