APPENDIX A
State Highway Agency Questionnaire

Name of Respondent __________ State ________________
Title __________________________ Phone ________________

SURVEY OF DEICING CHEMICAL USAGE AND MITIGATION MEASURES

1. Does your agency use chloride deicing salts (sodium chloride or calcium chloride)?

[ ] No. If no, please answer question 9 and return survey.

[ ] Yes. If yes, please specify:

Total annual tonnage _________ tons
Pct sodium chloride _________ %
Pct calcium chloride _________ %

2. What is the extent of salt usage in your state?

[ ] Widespread

[ ] Limited to parts of the state. If limited, please specify:
Locations where used (generally). _______________________

%
3. Please specify the approximate minimum, maximum, and average salt usage on state-maintained highways in terms of annual tons per lane-mile (by highway type if possible).

<table>
<thead>
<tr>
<th>Highway Type</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
<th># of Treated Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban interstate</td>
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<tr>
<td>Urban primary</td>
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<tr>
<td>Other urban</td>
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<tr>
<td>Rural interstate</td>
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<tr>
<td>Rural primary</td>
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<tr>
<td>Rural secondary</td>
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<tr>
<td>Other rural</td>
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<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>

4. Are salt application decisions and rates based on a prescribed agency policy?

[ ] No

[ ] Yes. If yes, briefly explain the policy. ____________________________

____________________________

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____________________________

____________________________

5. Does your agency use other deicing chemicals in addition to common sodium chloride or calcium chloride (e.g., CMA, corrosion-inhibiting salt additives)?
[ ] No

[ ] Yes. If yes, please identify the type of alternative, the amount used per year (in tons), and the circumstances when used. ______________________________________

________________________________________

________________________________________

________________________________________

________________________________________

6. Does your agency have a policy for reducing salt usage on highways in environmentally sensitive areas (such as forests or parklands) or near water supplies?

[ ] No

[ ] Yes. If yes, how many miles are affected? _______ miles

7. In recent years, has your agency received any complaints or been involved in litigation related to road salt impacts on water supplies or the natural environment?

[ ] No

[ ] Yes. If yes, please specify which areas have attracted the most complaints (e.g., water supplies, damage to roadside vegetation, etc.).

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________
Is the annual number of complaints increasing?
[ ] Yes [ ] No

How many complaints did you receive last year? _______

8. Is your agency (or another state agency) taking measures to monitor or mitigate (e.g., special drainage systems, relocation of private wells) the effect of highway salt runoff on the natural environment or drinking water?
[ ] No
[ ] Yes. If yes, please explain. _______________________
__________________________________________________
__________________________________________________
__________________________________________________
If the annual dollar cost of these measures is known, please specify. $ __________

9. Which bridge deck protective systems are used most frequently by your agency on new bridges or completely replaced bridge decks?
__________________________________________________
__________________________________________________
__________________________________________________
__________________________________________________

10. What has been the trend in salt use in your state in recent years?
[ ] Upward [ ] No change [ ] Downward
If upward, by how much since 1980? ___________%
If downward, by how much since 1980? ___________%

11. What is your agency's total annual budget for snow and ice removal?
Total $ ___________ (include expenditures on contract work)
If possible, please specify expense by:

- Equipment ______% 
- Manpower ______% 
- Deicing Chemicals ______% 
- Abrasives ______% 
- Other ______% (please specify ___________ )

12. Do local highway agencies (county, municipal, toll) in your state use road salt?
[ ] No
[ ] Yes. If yes, estimate the total amount they use as a percentage of state salt use. ___________%

13. Does your state regulate local agency salt use or offer any guidance on salt use practices?
[ ] No
[ ] Yes. If yes, please explain. ________________________________
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