Target	Target for 2019	Summary of Comments	Response to comments
<u>Description</u>			
Target #1:	220 road organizations reporting	Commenters noted that an appropriate target	Environment Canada agrees that there will likely be
Adoption of the	regularly	would be reporting by 100% of organizations using	some annual variation in reporting and has
Code	No. de la constanta de la cons	more than 500 t/year of road salt. However, they	established the target based on number of
	No change to target	recognized that the number of actual reports	organizations reporting in the first five years of the Code. Environment Canada will continue with Code
		received by Environment Canada may be variable and will be influenced by weather severity which	
		may put organizations above or below the 500	promotion to encourage consistent reporting from road organizations meeting the threshold.
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Target #2:	100% of road organizations	One commenter suggested that a more reasonable	Annual review of the Salt Management Plan is
Annual Review	annually review their salt	expectation is that Salt Management Plans be	already recommended in the Code. The target is
of Salt	management plan	reviewed and updated as required every 2 to 5	provided to reinforce the implementation of this best
Management		years. Comments also supported the target as an	practice and encourage continual improvement of
Plans		'important and good management practice'.	salt management plans.
	No change to target		
Target #3:	100% of road salts are stored	Comments received indicate the target is	
Salt Storage –	under a permanent roof and on	appropriate.	
Road Salt	impermeable pads		
	No change to target		

# Target #4: Salt Storage – Abrasives

75% (by weight) of treated abrasives covered

#### Change:

The national target will be lowered from the proposed target of 95% to 75%. Environment Canada will monitor progress and assess the accuracy of this target as more data becomes available.

Commenters noted that covering all road salts, whether segregated or mixed with abrasives, is an important element of the Code. This was specifically relevant to abrasive piles located in close proximity to known salt vulnerable areas. However, concerns related to capital costs of covering large abrasive piles, operational inefficiencies and lack of technical studies have been noted. One organization cited coverage of treated abrasives is unnecessary due to efficient mixing of salt (leading to less leaching of stockpiles) and monitoring of runoff.

In 2001, at the time of the assessment of road salts under the Canadian Environmental Protection Act, a study concluded that chloride leaching from uncovered abrasives at storage sites resulted in adverse environmental impacts. The Synthesis of Best Practices for Road Salt Management (Transportation Association of Canada, 2013) recommends that treated abrasives be covered and stored inside storage facilities. The primary purpose of covering abrasive piles is to minimize salt leaching into the natural environment. Therefore, the coverage of abrasives is encouraged wherever practicable.

The target has been revised to consider instances where alternate measures are put in place by road organizations to effectively monitor and control salt leaching through runoff. This will provide flexibility regarding the expenditures to achieve this target.

Through its voluntary online reporting system, Environment Canada collects information from road organizations and tracks the percentage of abrasives stored under permanent roof or tarps and on impermeable surfaces, drainage and good housekeeping practices at the storage site. In order to assess these practices in the future, additional information will be requested regarding measures in place to mitigate the releases of salts into the environment from road organizations that are not covering treated abrasives.

Target #5: Salt Application – Electronic Controllers	95% of vehicles are equipped with groundspeed electronic controllers  No change to target	Commenters noted that next to proper salt storage, this is the most cost-effective means of avoiding potential environmental impact from road salt usage. Having electronic controllers, however, is insufficient in itself. Routine calibrations ensure that appropriate application rates are achieved. Routine calibration should be considered in this target.	Through its voluntary online reporting system, Environment Canada collects information from road organizations regarding frequency of spreader calibration. Reports indicate that routine calibration is occurring. A change to the overall target is not warranted, however data on calibration frequency will continue to be monitored.
Target #6: Salt Application - Optimization of de-icers	<ul> <li>(a) 95% of road organizations are pre-wetting or using pretreated salt</li> <li>(b) 75%<sup>1</sup> of vehicles are equipped for pre-wetting</li> <li>No change to target</li> </ul>	Commenters noted that pre-wetting or use of pre- treated salts is not always the appropriate de-icing tactic. Also, commenters noted that the current increasing trend of using pre-treated salt may make this target too conservative. Overall, comments were supportive of the target, noting its flexibility and basis on equipment capacity.	Environment Canada continues to encourage road organizations to make operational decisions based on their local or regional conditions. The target provides enough flexibility in de-icing options that organizations can make these decisions while encouraging further optimization of salt application.

<sup>&</sup>lt;sup>1</sup> The % calculated in 2009 is based on the total number of vehicles from <u>all</u> road organizations. When reporting for the national target, the total number of vehicles will exclude organizations **not** pre-wetting. In addition, the optimal % of vehicles equipped for pre-wetting will be calculated and progress made toward it reported.

Target #7: Salt Vulnerable Areas (SVAs)	95% of road organizations have identified salt vulnerable areas and prepared an action plan (by <b>2024)</b> Change: The previous target had an objective of 95% of provinces and municipalities with population greater than 50,000 by 2019 and 50% of municipalities with population of less than 50,000 by 2024.	Commenters indicated that the target was too high given a current lack of guidance on how to identify salt vulnerable areas (SVAs). The task of mapping SVAs can be over-simplified and ineffective on one extreme or require prohibitively-expensive consultants and sophisticated environmental studies. As such, further guidance is needed to establish common standards for identification of SVAs. The achievement of the target may be delayed given Environment Canada has not yet finalized the development of a tool for the identification of SVAs.  Also, separating the target into two populations (above and below 50,000) seems arbitrary.  Organizations that cover large regions may have difficulties reviewing all potential SVAs regardless of population.	Environment Canada is in the process of developing additional guidance for the identification of SVAs and agrees that an improved framework will aid in the identification, monitoring and protection of salt vulnerable areas. A multi-disciplinary subgroup on salt vulnerable areas has been formed to provide feedback and review the practicality of the guidance. The guidance will be tested with case studies and is expected to be available in 2015. Recognizing this tool is currently under development, the overall target will be deferred to 2024 to allow more time for implementation. Environment Canada will provide periodic reports on the number of road organizations that identified salt vulnerable areas to verify progress towards the long term target.
Other		Although reviewers mostly agreed with performance indicators and national targets, the following comments were noted:  many targets are not attainable by smaller municipalities; the proposed targets may result in incurred costs for road organizations; and, use of road salts for private roads and parking lots is an area that should also receive attention. Further, it was asked how Environment Canada plans to track the benefit to the environment as the performance indicators and national targets are met or surpassed.	Under the Code, road organizations are individually responsible for their salt management. However, the national targets provide the requested flexibility for organizations who face cost challenges in achieving these targets while encouraging continued progress under the Code.  A guidance document on road salts use on private roads, parking lots and walkways is available as part of the Synthesis of Best Practices (Transportation Association of Canada, 2013). Environment Canada is also seeking information on salt in other sectors to inform if the Code needs to be expanded.  At the next five-year review, Environment Canada will assess the effectiveness of the Code in protecting the

environment. Further, information on the presence of chloride in the environment will be considered to

	assess trends.