



January 2021

Ministry of the Environment, Conservation and Parks
Land and Water Division
Great Lakes and Inland Waters Branch
Waterways Protection Office
1091 Gorham St
Newmarket, ON L3Y 8X7

Re.: LS-17-18-016 Final Report

Dear Sir or Madam,

On behalf of the Smart About Salt Council (SASC) I am pleased to share the following final report in relation to Ontario Transfer Payment Agreement (OTPA) LS-17-18-016).

Reducing the discharge of pollutants to Lake Simcoe and its tributaries and improving water quality for the ecological health of the Lake Simcoe watershed are objectives of the Lake Simcoe Protection Plan (LSPP). The LSPP identifies salt as a primary stressor that degrades water quality with increasing levels being found in the lake and its tributaries and emerging as an important environmental concern. The most obvious source is road salt applied in the winter to improve traction. Melting ice and snow carry salt into the stormwater systems and the lake and its rivers.

The SASC is a not-for-profit organization that since its 2009 inception has been dedicated to collaboratively working to protect freshwater from winter salt applied on facilities. The SASC is unique in its structure, ambitions and delivery of programs and services; the SASC offers award-winning in-class and online training that is grounded in leading winter maintenance practices and which form the basis to a robust certification program. The OTPA, LS-17-18-016, provides critical support for SASC's ambition to design a verification program that aims to support the transfer of knowledge 'from the class into the real world'.

Since the OPA was finalized much work has been undertaken.

Retain Consultant (C.3.1)

As previously reported, using tested and preferred procurement practices a request for proposals (RFP) document was crafted and distributed using MERX: Canada's electronic tendering service. As a result, the services of WSP Canada Group was retained. WSP Global Inc. is a Canadian business providing management and consultancy services to the built and natural environment. It is listed on the Toronto Stock Exchange (TSX:WSP).

Jurisdictional Scan (C.3.2)

Per article C.3.2, SASC oversaw the completion of a jurisdictional scan in May 2018.

C.3.2.1 Methodology

The jurisdictional scan was conducted through a combination of an Internet search, LISTSERV query, and telephone interviews. The intent was to locate programs similar to SASC and investigate their verification and auditing methods. The search was limited to North America to maintain a relevance in regards to snow and ice conditions, road and parking lot infrastructure, and legislative culture. For this reason, programs in Europe were not included.

C.3.2.2 The internet search was conducted by referencing known portals of winter maintenance information, such as the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the Transportation Research Board (TRB). The search was then widened to include commercial pages, program websites, and government databases. The focus was on finding and investigating road salt application certification projects and their training, verification, and accreditation processes. Materials consulted included academic papers, training presentation documents, news articles, and web pages. LISTSERV is a software application which distributes messages to subscribers on an electronic mailing list. For this project, a query was posed on the SNOW-ICE list serve which focuses on communication between winter maintenance professionals. The responses were considered through the context of the scope and intent of the project and were investigated accordingly. From the above, organizational representatives were identified and telephoned to provide clarity/expand on their online information.

As expected, there were a lack of verification and authentication programs among road salt certification programs, and therefore the search was expanded to other service certificate providers with similar contracted business models, authentication needs, operational methods, and leading practices.

C.3.2.3 In total eight (8) programs were reviewed in detail.

C.3.2.4 All of the road salt certification/verification programs reviewed were voluntary and education oriented, with emphasis placed on the benefits to the operators, property owners/managers, and the environment. These often-included reduced costs from minimized salt use, reputational benefits, legal benefits, and reduced impacts to the local infrastructure and waterways.

Online self-reporting was used in over half of the programs reviewed as a method for the certificate holders to track their own salt usage and operations. These self-reporting methods were not used as a verification tool. Where training was included in the certification process it always contained an in-class

component and often required the successful completion of a test at the end. All the programs required re-certification ranging in timescale from one to five years.

Most of the programs investigated did not contain a verification process. Reasoning for this ranged from the difficulties in monitoring a seasonal and transient workforce, the relative novelty of the programs, lack of resources, or that it was inconsistent with the goal of the program, which was often educational rather than regulatory. In addition, it should be noted that few of the programs had concrete data about their efficacy and impact on salt levels in local watersheds, partly due to the difficulty in isolating and monitoring this impact.

Programs outside of road salt certifications had more substantial verification processes which relied on auditing and in-person site visits. These verification processes were triggered by a variety of different factors including a random selection, breach of a threshold number, or regular scheduling regardless of other factors. Verifications often included on-site visits by either a member of the certification program or a contracted third-party. The benefits conferred by these programs included reputational benefits, access to professional networks, use of advertising material, and inclusion on a list of certificate holders. Some of the strategies included punitive measures if the terms of certification were breached such as denial of benefits or certificate revocation.

The results of the jurisdictional scan have been posted to www.smartaboutsalt.com, a publicly accessible Website.

Develop and Audit Framework (C.3.3)

With the assistance of professional counsel (WSP) and balanced with stakeholder feedback I am pleased to share that a verification program has been developed and adopted.

Solicit Feedback on the Audit Framework (C.3.4)

As noted above, SASC solicited feedback on the program verification framework through engagement with industry group representatives (LO's Snow and Ice Committee) and relevant conservation authorities (Credit Valley Conservation Authority (CVC), Lake Simcoe Conservation Authority (LSRCA), and Toronto Regional Conservation Authority (TRCA)) via the STEP Committee.

C.3.5 Pilot Framework

1. Recruit facility operators and winter maintenance professionals to participate in the Project and to permit access to their property, staff and records for the purposes of the Project;
2. Provide participating winter maintenance professionals and facility operators with an introduction to the objectives of the Project and the audit framework;
3. Complete five (5) audits using one (1) or more of the evaluation audit approaches (routine, random, complaint driven);
4. Provide post-audit de-brief with the participating winter maintenance professionals and facility operators; and,
5. Keep audit records including:
 - a. Number of people and/or organizations audited;
 - b. Details on how audits were initiated (such as email, telephone, complaints, voluntary, etc.);
 - c. Response time to complete audits; and,

- d. Auditor field notes about:
 - i. Post-audit debriefings with participating winter maintenance professionals and facility operators regarding their experience with the Project and any planned actions as a result of audits; and,
 - ii. Using the framework and any modifications that could be made to better support the Recipient's certification and training programs.

The piloting of the audit framework will be completed by the Recipient's consultant with support from the working group and Recipient's Project Manager.

C.3.6 Promote Audit Framework

Participation in the verification project was promoted directly and indirectly. For example, using internal list of key stakeholders the project was promoted with broad thematic emails but also passive communications strategies such as the creation and maintenance of dedicated webpages and associated marketing/communications collateral. More recently, through 2020 the project was highlighted in presentations to key constituencies such as Landscape Ontario through their newsletter and to select environment groups in and around the Lake Simcoe watershed.

The program verification program, the protocols therein and the findings have been made available to the public via Smart About Salt Council's website and a dedicated section, i.e. number of pages, therein (<http://www.smartaboutsalt.com/Program-Verification/>). Additionally, since the project commenced a number of social media platforms have been utilized to promote the Smart About Salt Council broadly and program verification in particular. In so doing, SASC has taken advantage of a variety of social media technologies including Facebook™, Instagram™, Twitter™ and more recently LinkedIn™.

Upon the completion of the project a press release was created and distributed in January 2020 to the Lake Simcoe Regional Conservation Authority (LSRCA), key provincial media and trade publications including Landscape Ontario's monthly newsletter to its Members.

C.3.7 Program Evaluation

It would seem that at present program verification (auditing) has no little impact of the promotion and adoption of SASC's training and certification programs. This is to be expected given the limited roll-out of the program to-date. Notwithstanding, where in-person audits have been conducted some improvement in the adoption of best management practices (BMP's) in winter maintenance have been communicated.

C.3.8 Comprehensive Report

Key engagement statistics related to the program verification project are offered in a table in Appendix I. Readers will note that direct, i.e. in-person, engagement was substituted for electronic communications. In part, due to the changed timelines, the working group which helped support the project met many more times than originally planned. In the context of in-field audit, broad engagement strategies such as email failed to gain interest however direct selective person-to-person tactics proved one hundred percent (100%) effective;

Key project findings:

1. To the best of our knowledge, development of the verification protocol is an international and industry first.
2. The project confirmed the premise that a verification surrounding the use of best practices in winter maintenance is helpful in continuing to strive for a reduction in the over-application of chlorides as a result of poor winter maintenance practices. Indeed, recent studies confirm that there is a so-called “goldilocks” point at which salt (typically sodium chloride) and other products are effective and maintain safety: Too little and safety is compromised, but too much also have both negative environmental consequences and diminish safety efforts.
3. Winter maintenance contractors ‘bristled’ at the language of a “program audit”. Additionally, communications had to be exceptionally explicit in the messaging and information requested. For example, on several occasions when records which substantiate when winter maintenance contractors were asked to report service areas and de-icing products they erroneously interpreted the request to seek confidential contract information
4. In the majority, those documents submitted to SASC as part of the project seemed to confirm reported salt usage.
5. These knowledge and sophistication of those that participated in the in-field audits differed widely and as a result no commonalities were apparent beyond the fact that each and every one could, to varying degrees, continue to improve their operations evolving to fully best management practices.

Looking forward the Smart About Salt Council believes that program verification will provide a useful tool that in the near-term offers SASC the opportunity to validate key research, and will provide a feedback mechanism for training and certification programs. Program verification will also be used by SASC as an important ‘coaching’ tool as winter maintenance professionals and alike are encouraged to increasingly adopt best management practices. At the same time, SASC is the only organization that has developed and implemented program verification. This fact further allows SASC to offer a unique value proposition to any individual and organization with an interest in winter maintenance and public safety. With this mind, it is SASC goal to strive to audit at least ten percent (10%) of SASC certified entities annually but one hundred percent (100%) every five (5) years.

Given the impacts arising from the COVID-19 global pandemic balanced with the newness of the SASC program verification efforts it is almost impossible to determine with any degree of reasonableness what, if any, impacts auditing may have on supporting existing training and certification efforts offered by the Smart About Salt Council (SASC). Certainly, the fact that SASC is offering verification as part of certification for no additional cost doesn’t negatively impact certification. For private winter maintenance contractors, it is felt that the prime motivation at present to seeking SASC training and certification is driven by the procurement process, whereas municipal operators are supported in their professional development by their municipal employers. As demonstrated in New Hampshire, this paradigm will only change if provincial regulation is approved and professionalism and the inherent use/application of best management practices are required in order to achieve limited liability relief.

While based largely on anecdotal information it would seem that at present program verification (auditing) has no impact on the promotion and adoption of SASC’s training and certification programs. Regardless, SASC believes that program verification is an important component of its certification efforts assisting in SASC’s mission goal to improve winter maintenance practices and thereby reducing the

negative impacts of salt. Annually, SASC will seek documentation from every SASC certified member, which provides valuable research data on winter maintenance practices, and offers feedback on the effectiveness and use of SASC's training in best management practices. At the same time, annually, SASC has set a tentative goal to conduct in-field/on-site audits of ten percent (10%) of all those that are SASC certified with the goal to conduct a face-to-face audit with each every five (5) years.

On behalf of the SASC I want to thank the Ministry of the Environment and Climate Change (MECP) for your time and support for our online training facility project related to winter maintenance and the appropriate use of de-icing media such as salt.

Should the MECP require further information please do not hesitate in contacting me by email at contact@smartaboutsalt.com or by telephone at 647.722.5699.

Sincerely yours,

Executive Director

Appendix I – Engagement Summary

Report on engagement in the context of the Table C6 (Performance Measures and Targets) of the original Agreement and C.3.8(h) Comprehensive Report.

Performance Measures	Performance Targets	Actual
Number of individuals from leading jurisdictions interviewed for purposes of C.3.2.3	25	13
Number of engagement sessions as described in Section C.3.4	3	17
Number of working group meetings	10	20
Number individuals/organizations engaged in C.3.6	50	159
Number of completed online surveys about the audit framework in Section C.3.7	25	0

Appendix II – Field, In-Person Audit Tool

A sample of the four (4) page tool developed for in-person field audits. In all instances the in-field “notes” are followed by detailed letter correspondence regarding findings and suggestions for improvement.

SMART ABOUT SALT AUDIT FORM LOCATION: XXXX,XXXX, ON DATE: August XX, 2020

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
Salt Use	Review salt use records for reporting year and confirm the amount reported on the Annual Report.	<ul style="list-style-type: none"> • Salt applied by each truck is tracked by storm event and location • Areas calculated for each site • All salt use is put into a spreadsheet • Salt use record keeping need improvement 	Work with partners to determine full knowledge/documentation of products utilized
Continual Improvement	Confirm that progress is being made from year to year. This will be based on other findings.	<ul style="list-style-type: none"> • Continue to improve equipment’s ability to apply variable rates • Conducting tests of different application rates • Trying different products such as pretreated salt. • Trying different BMP’s, e.g. liquids • Ongoing improvement is evident 	
Training	Review training program for completeness and training records to confirm that training is being given. Randomly speak to operators to confirm they took the training and they learned the importance of salt management.	<ul style="list-style-type: none"> • XXXX took the SAS training. • Training is being given to all staff 	Consider taking advantage of the SASC offer to provide a discounted training to all team members
Calibration	Confirm that calibration has been completed for all equipment by reviewing calibration records and speaking with the person doing the calibration. Confirm that the level they are claiming is in fact being achieved.	<ul style="list-style-type: none"> • All spreaders are calibrated annually and upon maintenance by a third-party. Visual tests are done for variable spread rates and pictures are taken. • Application compared to benchmark and differences are flagged – recalibration done if needed. • Rough calibration records are kept – This should be better documented – when vehicle was calibrated/ recalibrated. 	Consider keeping operating parameters for each truck in the cab and providing training to operators

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
		<ul style="list-style-type: none"> • Calibration of vehicles is being done at the start of the season and being checked. Calibration records are present. 	
Application Rates	Confirm that they have the level of application rates as reported in the last Annual Summary. Confirm how application rates are being determined.	<ul style="list-style-type: none"> • Operators are trained on how to apply specific rates for their vehicle. • Variable application rates exist and are selected on the basis of the event and location to varying degrees. 	Variable application rates (H/M/L) are determined for each spreader Application rates are adjusted for event type
Winter Logs	Obtain a copy of completed winter logs and confirm that they are consistent with SAS standard logs and that they are being completed properly.	<ul style="list-style-type: none"> • Comprehensive paper-based logs are maintained for truck crews, sidewalk crews and supervisors • Storm summaries are prepared after the event. • Use is tracked by event and location • Ongoing review to determine appropriate rates • Winter Logs are acceptable 	Consider use of technology for recordkeeping
Winter Control Policy and Procedures Manual	Confirm that one exists. Review for content headings. This is not a standard requirement but is a learning opportunity.	<ul style="list-style-type: none"> • Policy and procedures were not checked in this audit 	
Interview one or more operators	Ask: <ul style="list-style-type: none"> • Have they been taught about best salt 	<ul style="list-style-type: none"> • XXXX has taken the SASC course. • All staff have some training prior to the start of this winter • Staff is aware of the record keeping requirements 	

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
	<p>management practices.</p> <ul style="list-style-type: none"> How salt application rates are determined for a given day. What records are they required to maintain. 	<ul style="list-style-type: none"> There is evidence that personnel are trained. 	
Storage Facility	Inspect salt storage facility and confirm: covered, impermeable floor, impermeable loading area, good housekeeping policy. Take picture.	<ul style="list-style-type: none"> The storage facility is covered and on an impermeable pad. There are no doors on the storage facility. The vehicle loading area is gravel or asphalt No sand/salt mix is stored onsite No liquids are stored utilized 	<p>Pave storage and loading areas for any new site storage.</p> <p>Put collision protection for the outside storage of liquids.</p>
Confirmation Sites	Randomly select 2 sites and get address and contact information for site manager.	<ul style="list-style-type: none"> Confirmation sites were not inspected before heavy rain 	Inspect confirmation sites after snow event
Plowing	Confirm that snow storage is being planned.	<ul style="list-style-type: none"> Site forms show where to put snow and where not to. 	Work with facility owner to limit that number and location of snow storage
OTHER GENERAL COMMENTS			
See accompanying letter.			

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
See accompanying letter.			



Janvier 2021

Ministère de l'Environnement, de la Protection de la nature et des Parcs
Division des terres et de l'eau
Direction générale des Grands Lacs et des Eaux intérieures
Bureau de protection des voies navigables
1091, rue Gorham
Newmarket, ON L3Y 8X7

Concernant.: LS-17-18-016 Rapport Final

Cher Monsieur ou Madame,

Au nom du Conseil pour l'application intelligente du sel (SASC), je suis heureux de vous faire part du rapport final suivant concernant l'Entente de paiement de transfert de l'Ontario (OTPA) LS-17-18-016).

La réduction des rejets de polluants dans le lac Simcoe et ses affluents et l'amélioration de la qualité de l'eau pour la santé écologique du bassin versant du lac Simcoe sont des objectifs du Plan de protection du lac Simcoe (PPSL). Le PPSL identifie le sel comme un facteur de stress primaire qui dégrade la qualité de l'eau avec des niveaux croissants trouvés dans le lac et ses affluents et émergeant comme une préoccupation environnementale importante. La source la plus évidente est le sel de voirie appliqué en hiver pour améliorer la traction. La fonte de la glace et de la neige transporte le sel dans les systèmes d'eaux pluviales et le lac et ses rivières.

La SASC est un organisme sans but lucratif qui, depuis sa création en 2009, s'est consacré à travailler en collaboration pour protéger l'eau douce contre le sel d'hiver appliqué sur les installations. La SASC est unique dans sa structure, ses ambitions et sa prestation de programmes et de services; la SASC offre une formation primée en classe et en ligne qui est fondée sur des pratiques d'entretien hivernale de pointe et qui constituent la base d'un solide programme de certification. L'OTPA, LS-17-18-016, apporte un soutien essentiel à l'ambition de sasc de concevoir un programme de vérification qui vise à soutenir le transfert de connaissances 'de la classe dans le monde réel'.

Depuis que l'OTPA a été finalisé, beaucoup de travail a été entrepris.

Retenir les services d'un consultant (C.3.1)

Comme nous l'avons déjà signalé, à l'aide de pratiques d'approvisionnement testées et privilégiées, un document de demande de propositions (DP) a été élaboré et distribué à l'aide de MERX : le service d'appel d'offres électronique du Canada. Par conséquent, les services du Groupe WSP Canada ont été retenus. WSP Global Inc. est une entreprise canadienne qui fournit des services de gestion et de consultation à l'environnement bâti et naturel. Il est coté à la Bourse de Toronto (TSX:WSP).

Analyse juridictionnelle (C.3.2)

Par article C.3.2, la SASC a supervisé l'achèvement d'une analyse juridictionnelle en mai 2018.

C.3.2.1 Méthodologie

L'analyse juridictionnelle a été effectuée au moyen d'une combinaison d'une recherche sur Internet, d'une requête LISTSERV et d'entrevues téléphoniques. L'objectif était de trouver des programmes semblables à ceux du CSSS et d'enquêter sur leurs méthodes de vérification et de certification. La recherche s'est limitée à l'Amérique du Nord pour maintenir une pertinence en ce qui concerne l'état de la neige et du verglas, l'infrastructure routière et de stationnement et la culture législative. Pour cette raison, les programmes en Europe n'ont pas été inclus.

C.3.2.2 La recherche sur Internet a été effectuée en faisant référence à des portails connus d'information sur l'entretien hivernal, tels que la Federal Highway Administration (FHWA), l'American Association of State Highway and Transportation Officials (AASHTO) et le Transportation Research Board (TRB). La recherche a ensuite été élargie pour inclure des pages commerciales, des sites Web de programmes et des bases de données gouvernementales. L'accent était mis sur la recherche et l'étude de projets de certification des demandes de sel de voirie et de leurs processus de formation, de vérification et d'accréditation. Les documents consultés comprenaient des articles universitaires, des documents de présentation de formation, des articles de nouvelles et des pages Web. LISTSERV est une application logicielle qui distribue des messages aux abonnés sur une liste de diffusion électronique. Pour ce projet, une question a été posée sur la liste SNOW-ICE qui met l'accent sur la communication entre les professionnels de l'entretien hivernal. Les réponses ont été examinées dans le contexte de la portée et de l'intention du projet et ont fait l'objet d'une enquête en conséquence. À partir de ce qui précède, les représentants organisationnels ont été identifiés et téléphonés pour clarifier et élargir leurs renseignements en ligne.

Comme prévu, il y avait un manque de programmes de vérification et d'authentification parmi les programmes de certification du sel de voirie, et par conséquent la recherche a été étendue à d'autres fournisseurs de certificats de service ayant des modèles d'affaires contractuels similaires, des besoins d'authentification, des méthodes opérationnelles et des pratiques de pointe.

C.3.2.3 Au total, huit (8) programmes ont été examinés en détail.

C.3.2.4 Tous les programmes de certification et de vérification du sel de voirie examinés étaient volontaires et axés sur l'éducation, en mettant l'accent sur les avantages pour les exploitants, les propriétaires fonciers et les gestionnaires et l'environnement. Il s'agissait souvent de réduire les coûts

liés à l'utilisation réduite du sel, aux avantages pour la réputation, aux avantages juridiques et à la réduction des répercussions sur l'infrastructure et les voies navigables locales.

L'autodéfique en ligne a été utilisée dans plus de la moitié des programmes examinés comme méthode pour que les titulaires de certificats suivent leur propre utilisation et exploitation du sel. Ces méthodes d'autodéfportation n'ont pas été utilisées comme outil de vérification. Lorsque la formation était incluse dans le processus de certification, elle contenait toujours un élément de classe et exigeait souvent l'achèvement réussi d'un test à la fin. Tous les programmes nécessitaient une recertification d'une durée d'un à cinq ans.

La plupart des programmes étudiés ne contenaient pas de processus de vérification. Le raisonnement à cet égard allait des difficultés à surveiller une main-d'œuvre saisonnière et transitoire, de la nouveauté relative des programmes, du manque de ressources ou du fait qu'il était incompatible avec l'objectif du programme, qui était souvent éducatif plutôt que réglementaire. En outre, il convient de noter que peu de programmes avaient des données concrètes sur leur efficacité et leur impact sur les niveaux de sel dans les bassins versants locaux, en partie en raison de la difficulté d'isoler et de surveiller cet impact..

Les programmes en dehors des certifications de sel de voirie avaient des processus de vérification plus importants qui reposaient sur la vérification et les visites en personne sur place. Ces processus de vérification ont été déclenchés par une variété de facteurs différents, y compris une sélection aléatoire, la violation d'un numéro de seuil ou une planification régulière indépendamment d'autres facteurs. Les vérifications comprenaient souvent des visites sur place d'un membre du programme de certification ou d'un tiers contractuel. Les avantages conférés par ces programmes comprenaient des avantages pour la réputation, l'accès à des réseaux professionnels, l'utilisation de matériel publicitaire et l'inscription sur une liste de titulaires de certificats. Certaines des stratégies comprenaient des mesures punitives si les conditions de certification étaient violées, comme le refus de prestations ou la révocation d'un certificat.

Les résultats de l'analyse juridictionnelle ont été affichés à www.smartaboutsalt.com, un site Web accessible au public.

Élaborer et auditer un cadre (C.3.3)

Avec l'aide d'un avocat professionnel (WSP) et en équilibre avec les commentaires des intervenants, je suis heureux de partager qu'un programme de vérification a été élaboré et adopté.

Solliciter des commentaires sur le cadre de vérification (C.3.4)

Comme nous l'avons mentionné plus haut, la SASC a sollicité des commentaires sur le cadre de vérification du programme en s'entretant avec des représentants de groupes de l'industrie (Comité sur la neige et la glace de LO) et les autorités compétentes en matière de conservation (Credit Valley Conservation Authority (CVC), Lake Simcoe Conservation Authority (LSRCA) et Toronto Regional Conservation Authority (TRCA)) par l'entremise du Comité STEP.

C.3.5 Cadre pilote

1. Recruter des exploitants d'installations et des professionnels de l'entretien hivernal pour participer au projet et permettre l'accès à leur propriété, à leur personnel et à leurs dossiers aux fins du projet;

2. Fournir aux professionnels de l'entretien hivernal participants et aux exploitants d'installations une introduction aux objectifs du projet et au cadre de vérification;
3. Effectuer cinq (5) vérifications à l'aide d'une (1) ou plus des approches de vérification de l'évaluation (routine, aléatoire, axée sur les plaintes);
4. Fournir un dé-mémoire après vérification aux professionnels de l'entretien hivernal participants et aux exploitants d'installations; et,
5. Tenir des registres de vérification, y compris:
 - a. Nombre de personnes et/ou d'organisations vérifiées;
 - b. Détails sur la façon dont les vérifications ont été amorcées (comme le courriel, le téléphone, les plaintes, le volontariat, etc.);
 - c. Temps de réponse pour effectuer des vérifications; et,
 - d. Notes de terrain du vérificateur sur:
 - i. i. Comptes rendus post-vérification avec les professionnels de l'entretien hivernal participants et les exploitants d'installations au sujet de leur expérience du projet et des mesures prévues à la suite de vérifications; et,
 - ii. ii. Utiliser le cadre et toutes les modifications qui pourraient être apportées pour mieux appuyer les programmes de certification et de formation du bénéficiaire.

La mise à l'essai du cadre de vérification sera complétée par le consultant du bénéficiaire avec l'appui du groupe de travail et du gestionnaire de projet du bénéficiaire.

C.3.6 Promouvoir le cadre d'audit

La participation au projet de vérification a été promue directement et indirectement. Par exemple, à l'aide d'une liste interne d'intervenants clés, le projet a été promu par des courriels thématiques généraux, mais aussi par des stratégies de communication passives telles que la création et la maintenance de pages Web dédiées et de garanties de marketing et de communications connexes. Plus récemment, jusqu'en 2020, le projet a été mis en évidence dans des présentations à des groupes clés comme Paysage Ontario par l'entremise de son bulletin d'information et pour sélectionner des groupes environnementaux dans et autour du bassin versant du lac Simcoe.

Le programme de vérification du programme, les protocoles qui s'y sont produits et les constatations ont été mis à la disposition du public par l'entremise du site Web de Smart About Salt Council et d'une section dédiée, c'est-à-dire le nombre de pages qui s'y trouve (<http://www.smartaboutsalt.com/Program-Verification/>). De plus, depuis le début du projet, un certain nombre de plateformes de médias sociaux ont été utilisées pour promouvoir Conseil pour l'application intelligente du sel en général et la vérification des programmes en particulier. Ce faisant, SASC a tiré parti d'une variété de technologies de médias sociaux, y compris Facebook™, Instagram™, Twitter™ et plus récemment LinkedIn™.

À la fin du projet, un communiqué de presse a été créé et distribué en janvier 2020 au the Lake Simcoe Regional Conservation Authority (LSRCA), les principales publications provinciales sur les médias et le commerce, y compris le bulletin mensuel de Paysage Ontario à ses membres.

C.3.7 Évaluation du programme

Il semblerait qu'à l'heure actuelle, la vérification des programmes (vérification) n'ait pas peu d'incidence sur la promotion et l'adoption des programmes de formation et de certification de la SASC. Il faut s'y attendre compte tenu du déploiement limité du programme à ce jour. Néanmoins, lorsque des vérifications en personne ont été effectuées, certaines améliorations ont été réalisées dans l'adoption des meilleures pratiques de gestion en matière d'entretien hivernal.

C.3.8 Rapport complet

Les principales statistiques d'engagement liées au projet de vérification du programme sont offertes dans un tableau de l'Annexe I. Les lecteurs notent que l'engagement direct, c'est-à-dire en personne, a été remplacé par des communications électroniques. En partie, en raison des échéanciers modifiés, le groupe de travail qui a aidé à appuyer le projet s'est réuni beaucoup plus de fois que prévu. Dans le contexte de la vérification sur le terrain, les stratégies générales d'engagement telles que le courrier électronique n'ont pas réussi à s'intéresser, mais les tactiques sélectives directes de personne à personne se sont avérées à cent pour cent (100 %) efficace;

Principales conclusions du projet:

1. À notre connaissance, l'élaboration du protocole de vérification est une première internationale et de l'industrie.
2. Le projet a confirmé la prémisse qu'une vérification entourant l'utilisation des pratiques exemplaires dans l'entretien hivernal est utile pour continuer à s'efforcer de réduire la surutilisation des chlorures en raison des mauvaises pratiques d'entretien hivernal. En effet, des études récentes confirment qu'il existe un point dit des 'boucles d'or' où le sel (généralement le chlorure de sodium) et d'autres produits sont efficaces et maintiennent la sécurité : trop peu et la sécurité sont compromises, mais trop ont aussi des conséquences environnementales négatives et diminuent les efforts de sécurité.
3. Les entrepreneurs d'entretien hivernal s'en sont « hérissés » au moment d'une 'vérification du programme'. De plus, les communications devaient être exceptionnellement explicites dans les messages et les renseignements demandés. Par exemple, à plusieurs reprises, lorsqu'on a demandé aux entrepreneurs en entretien hivernal de déclarer les aires de service et les produits de dégivrage à plusieurs reprises, ils ont interprété à tort la demande de demander des renseignements confidentiels sur le contrat.
4. Dans la majorité des cas, les documents soumis à la SASC dans le cadre du projet semblaient confirmer l'utilisation déclarée du sel.
5. Ces connaissances et la sophistication de ceux qui ont participé aux vérifications sur le terrain différaient considérablement et, par conséquent, il n'y avait pas de points communs au-delà du fait que chacun pouvait, à des degrés divers, continuer d'améliorer ses opérations en se évoluant vers des pratiques de gestion pleinement exemplaires.

Pour l'avenir, le Conseil pour l'application intelligente du sel croit que la vérification du programme fournira un outil utile qui, à court terme, offrira à SASC la possibilité de valider des recherches clés et fournira un mécanisme de rétroaction pour les programmes de formation et de certification. La vérification du programme est également utilisée par saSC comme un outil important de « coaching » car les professionnels de l'entretien hivernal et les professionnels de l'entretien hivernal sont encouragés à adopter de plus en plus les meilleures pratiques de gestion. En même temps, la SASC est la

seule organisation qui a élaboré et mis en œuvre la vérification des programmes. Ce fait permet en outre à SASC d'offrir une proposition de valeur unique à toute personne et organisation qui s'intéresse à l'entretien hivernal et à la sécurité publique. Dans cet esprit, l'objectif de la SASC est de s'efforcer d'auditer au moins dix pour cent (10%) d'entités certifiées SASC chaque année, mais à cent pour cent (100 %) tous les cinq (5) ans.

Compte tenu des répercussions découlant de la pandémie mondiale covid-19, compte tenu de la nouveauté des efforts de vérification du programme SASC, il est presque impossible de déterminer avec un certain degré de caractère raisonnable quelles répercussions, le cas échéant, la vérification pourrait avoir sur le soutien aux efforts de formation et de certification existants offerts par le Conseil pour l'application intelligente du sel (SASC). Il est certain que le fait que SASC offre une vérification dans le cadre de la certification sans frais supplémentaires n'a pas d'incidence négative sur la certification. Pour les entrepreneurs privés d'entretien hivernal, on estime que la principale motivation à l'heure actuelle à la recherche d'une formation et d'une certification de la SASC est motivée par le processus d'approvisionnement, alors que les exploitants municipaux sont appuyés dans leur perfectionnement professionnel par leurs employeurs municipaux. Comme on l'a démontré dans le New Hampshire, ce paradigme ne changera que si la réglementation provinciale est approuvée et si le professionnalisme et l'utilisation/application inhérente des pratiques exemplaires de gestion sont nécessaires afin d'obtenir un allègement limité de la responsabilité.

Bien qu'il soit fondé en grande partie sur des renseignements anecdotiques, il semblerait qu'à l'heure actuelle, la vérification du programme (vérification) n'ait aucune incidence sur la promotion et l'adoption des programmes de formation et de certification de la SASC. Quoi qu'il en soit, la SASC croit que la vérification du programme est un élément important de ses efforts de certification qui aident à atteindre l'objectif de la SASC d'améliorer les pratiques d'entretien hivernal et, par conséquent, de réduire les effets négatifs du sel. Chaque année, la SASC cherchera à obtenir de la documentation auprès de tous les membres certifiés sasc, qui fournit de précieuses données de recherche sur les pratiques d'entretien hivernal, et offre des commentaires sur l'efficacité et l'utilisation de la formation de SASC sur les meilleures pratiques de gestion. Parallèlement, chaque année, la SASC s'est fixé comme objectif provisoire de procéder à des vérifications sur le terrain ou sur place de 10 % (10 %) de tous ceux qui sont certifiés SASC dans le but d'effectuer une vérification en personne tous les cinq (5) ans.

Au nom de la SASC, je tiens à remercier le Ministère de l'Environnement, de la Protection de la nature et des Parcs pour votre temps et votre soutien à notre projet de centre de formation en ligne lié à l'entretien hivernal et à l'utilisation appropriée de supports de dégivrage tels que le sel.

Si le le Ministère de l'Environnement, de la Protection de la nature et des Parcs a besoin de plus d'informations, n'hésitez pas à me contacter par e-mail au contact@smartaboutsalt.com ou par téléphone au 647.722.5699.

Sincèrement vôtre,

Directeur exécutif

Annexe I – Résumé de l'engagement

Rapport sur l'engagement dans le contexte du tableau C6 (Mesures et cibles du rendement) de l'Accord initial et du rapport complet C.3.8(h).

Mesures du rendement	Objectifs de rendement	Actuelle
Nombre de personnes de grandes juridictions interrogées aux fins de C.3.2.3	25	13
Nombre de séances d'engagement décrites à la section C.3.4	3	17
Nombre de réunions de groupes de travail	10	20
Nombre de personnes/organisations engagées dans C.3.6	50	159
Nombre de sondages en ligne remplis au sujet du cadre de vérification à la section C.3.7	25	0

Annexe II – Outil d’audit en personne sur le terrain

Un échantillon des quatre (4) outils de page mis au point pour les vérifications en personne sur le terrain. Dans tous les cas, les ‘notes’ sur le terrain sont suivies d’une correspondance détaillée concernant les constatations et les suggestions d’amélioration.

SMART ABOUT SALT AUDIT FORM LOCATION: XXXX,XXXXX, ON DATE: August XX, 2020

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
Salt Use	Review salt use records for reporting year and confirm the amount reported on the Annual Report.	<ul style="list-style-type: none"> • Salt applied by each truck is tracked by storm event and location • Areas calculated for each site • All salt use is put into a spreadsheet • Salt use record keeping need improvement 	Work with partners to determine full knowledge/documentation of products utilized
Continual Improvement	Confirm that progress is being made from year to year. This will be based on other findings.	<ul style="list-style-type: none"> • Continue to improve equipment’s ability to apply variable rates • Conducting tests of different application rates • Trying different products such as pretreated salt. • Trying different BMP’s, e.g. liquids • Ongoing improvement is evident 	
Training	Review training program for completeness and training records to confirm that training is being given. Randomly speak to operators to confirm they took the training and they learned the importance of salt management.	<ul style="list-style-type: none"> • XXXX took the SAS training. • Training is being given to all staff 	Consider taking advantage of the SASC offer to provide a discounted training to all team members
Calibration	Confirm that calibration has been completed for all equipment by reviewing calibration records and speaking with the person doing the calibration. Confirm that the level they are claiming is in fact being achieved.	<ul style="list-style-type: none"> • All spreaders are calibrated annually and upon maintenance by a third-party. Visual tests are done for variable spread rates and pictures are taken. • Application compared to benchmark and differences are flagged – recalibration done if needed. • Rough calibration records are kept – This should be better documented – when vehicle was calibrated/ recalibrated. 	Consider keeping operating parameters for each truck in the cab and providing training to operators

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
		<ul style="list-style-type: none"> Calibration of vehicles is being done at the start of the season and being checked. Calibration records are present. 	
Application Rates	Confirm that they have the level of application rates as reported in the last Annual Summary. Confirm how application rates are being determined.	<ul style="list-style-type: none"> Operators are trained on how to apply specific rates for their vehicle. Variable application rates exist and are selected on the basis of the event and location to varying degrees. 	<p>Variable application rates (H/M/L) are determined for each spreader</p> <p>Application rates are adjusted for event type</p>
Winter Logs	Obtain a copy of completed winter logs and confirm that they are consistent with SAS standard logs and that they are being completed properly.	<ul style="list-style-type: none"> Comprehensive paper-based logs are maintained for truck crews, sidewalk crews and supervisors Storm summaries are prepared after the event. Use is tracked by event and location Ongoing review to determine appropriate rates Winter Logs are acceptable 	Consider use of technology for recordkeeping
Winter Control Policy and Procedures Manual	Confirm that one exists. Review for content headings. This is not a standard requirement but is a learning opportunity.	<ul style="list-style-type: none"> Policy and procedures were not checked in this audit 	
Interview one or more operators	Ask: <ul style="list-style-type: none"> Have they been taught about best salt 	<ul style="list-style-type: none"> XXXX has taken the SASC course. All staff have some training prior to the start of this winter Staff is aware of the record keeping requirements 	

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
	management practices. <ul style="list-style-type: none"> How salt application rates are determined for a given day. What records are they required to maintain. 	<ul style="list-style-type: none"> There is evidence that personnel are trained. 	
Storage Facility	Inspect salt storage facility and confirm: covered, impermeable floor, impermeable loading area, good housekeeping policy. Take picture.	<ul style="list-style-type: none"> The storage facility is covered and on an impermeable pad. There are no doors on the storage facility. The vehicle loading area is gravel or asphalt No sand/salt mix is stored onsite No liquids are stored utilized 	Pave storage and loading areas for any new site storage. Put collision protection for the outside storage of liquids.
Confirmation Sites	Randomly select 2 sites and get address and contact information for site manager.	<ul style="list-style-type: none"> Confirmation sites were not inspected before heavy rain 	Inspect confirmation sites after snow event
Plowing	Confirm that snow storage is being planned.	<ul style="list-style-type: none"> Site forms show where to put snow and where not to. 	Work with facility owner to limit that number and location of snow storage
OTHER GENERAL COMMENTS			
See accompanying letter.			

CONTACT PERSON	Obtain name, email, and phone for people involved.	XXXXX	XXXXXXXXXX XXXX@XXXX
On August XX, 2020 XXXX completed and Audit of XXXX, XXXXX, Ontario. The latest annual report was used as a reference point for this audit. The following outlines the findings of the Audit.			
AUDIT ITEM	EVIDENCE TO LOOK FOR	FINDINGS	FOLLOW-UP
See accompanying letter.			