



## Mohawk Council of Kahnawà:ke

Investigation into deposits of asbestos-containing materials in landfill soils

October 2021

# 1 Executive Summary

## 1.1 Background

### 1.1.1 General overview

1. The Mohawk Council of Kahnawà:ke (“MCK”) uses landfill soils from around the community of Kahnawà:ke (the “Community”) to prepare residential lots and other infrastructure projects. In 2016, Community Members began to report the discovery of pieces of construction debris on their residential lots. This debris was later identified as coming from asbestos-containing cement (“AC”) pieces of sanitary sewer pipes. Further discoveries of AC sewer pipe were then found in non-residential locations. These events were brought to the attention of the MCK in 2019. MCK has since worked to better understand how the debris ended up in the soil, the origin of the debris, the potential location of where it was deposited, and a timeline of the deposits. MCK has also been working on the development of a plan to remediate the situation and has formed a group dedicated to dealing with the issue, called the Asbestos Working Group (“AWG”).
2. AC was a popular material for wastewater systems, including sanitary sewer systems beginning in the 1940s up to the 1980s, and were installed as part of the sanitary sewer system in Kahnawà:ke. In the early 2000s issues with the system prompted its review, resulting in a plan for a sewer pipe replacement project beginning in 2012.
3. During the course of the sewer pipe replacement project, AC pipes were replaced which caused instances where fragments of AC pipe ended up in the soil to be used to grade areas of land throughout the Community. In Kahnawà:ke, soil used for grading is referred to as “landfill” and is managed by the Landfill Office and Clean Soil Policy.

### 1.1.2 Asbestos-containing cement sanitary sewer pipes

4. MCK’s expert advisor reported that an AC pipe contains fibers of asbestos in the cement and is safe when it is in a solid state and/or buried in the ground. Pipe containing asbestos material in its solid state is referred to as “AC pipe”. Once an AC pipe is broken, or is in pieces, it is referred to as “ACM pipe fragments”. The dangers of ACM pipe fragments result when particles/fibers are inhaled.
5. ACM pipe fragments were reported to be found in a residential development area, referred to as “Lot 106” and concerns were raised about how the pipe got there, how it was dealt with by MCK, and why it continues to be found in the Community.

### 1.1.3 Structure of MCK

6. The Council of Chiefs serves as the political leadership of the MCK. The MCK’s administration has 19 operational units. The Council of Chiefs and Administration work at arm’s length to ensure independence and separation of political and operational decisions, respectively.
7. The operational units involved in the investigation are:
  - **Executive Office:** Overseen by both the Grand Chief and the Finance and Administration & Operations Committee (“FAO”), a standing committee of the Council of Chiefs. The Executive Office is led by the Executive Director, and includes the Executive Operations Officer, Executive Strategic Officer, Executive Administration Officer, Executive Revenue Officer and the Executive Financial Officer. This office oversees the administration and operations of all MCK units.
  - **Capital Unit:** Overseen by the Executive Operations Officer, this unit is led by the Director of the Capital Unit. The unit is responsible for planning, managing, and implementing construction projects within the Community. Additional positions in the unit relevant to this investigation include ones such as the Capital Superintendent, Technical Services Coordinator, Senior Civil Engineer, Capital Cost Analyst, Capital Construction Foreman and Capital Construction Laborers.

- **Public Works:** Overseen by the Executive Operations Officer, this unit is led by the Director of Public Works. The unit is responsible for the management of heavy equipment, infrastructure, maintenance, roads and highways, transportation, and waste management. The Capital Unit uses heavy equipment operators and machinery from the Public Works Unit for their construction projects.
- **Environment Protection Unit:** Overseen by the Executive Operations Officer, this unit is also referred to as 'KEPO' and is led by the Director of Environmental Protection. It is responsible for the management and protection of Kahnawà:ke Community lands. Additional positions in the unit relevant to this investigation include ones such as the General Manager of Environmental Protection, General Manager of Field Science and Environmental Inspector.
- **Public Safety Division ("PSU"):** Overseen by the Executive Director and is led by the Commissioner of Public Safety. Additional oversight is given through the Public Safety Commission. Public Safety includes services through Public Safety, corrections, Animal Control and Emergency preparedness. The **Landfill Office** which manages the movement of landfill within the Kahnawà:ke sits under the Public Safety Division.
- **Kahnawà:ke Labour Office ("KLO"):** Overseen by the Executive Operations Officer, this unit is led by the Kahnawà:ke Labour Office Director. It is responsible for the management and protection of Kahnawà:ke labour force.
- **Lands Unit:** Overseen by the Executive Operations Officer, this unit is led by the Director of the Lands Unit. It is responsible for the management of Kahnawà:ke land, including allocation of land to Members.
- **Legal Services:** Overseen by the Executive Director, this unit is a supporting function to MCK's operations and deals with internal and external compliance matters as they apply to the law.

#### 1.1.4 Scope

8. Deloitte Forensic Inc. ("**Deloitte**" or "**We**") was retained by MCK on May 10, 2021 to perform an independent investigation, based on forensic standards, into the issue of deposits of ACM in landfill soils in Kahnawà:ke from January 2000 to May 2020 (the "**Review Period**").
9. The review did not include any remediation strategies or efforts undertaken by MCK and the results of our analysis and the resulting recommendations are for internal use by the MCK. We understand that the intention of the ACI Project is to prompt "MCK's authoritative bodies to act accordingly and apply appropriate corrective measures that ensure a safer future for lands within the Community".

#### 1.1.5 Methodology and Limitations

10. All interviews were conducted through virtual meetings (with and without video) which may have impacted the amount of information interviewees shared with us. We have been informed by ACI's Community Representative that it was brought to his attention that some people may have been "coached" before being interviewed. This might have impacted the answers provided to our questions. In order to limit the impact that any 'interview coaching' may have had on this Report, we cross-referenced information where possible with historical documents and conducted numerous interviews to obtain a clear view of the situations being described by interviewees.
11. Our review was limited to the information that we received from MCK and public website searches. Documentation at the outset of the investigation was provided to us by MCK's Project Manager which contained various reports, letters and details pertaining to the investigation. The Deloitte team reviewed this documentation and requested additional documents from the Project Manager as needed. Some information was also provided directly from interviewees.
12. MCK's Project Manager provided Deloitte a listing of potential interviewees at the beginning of the investigation. Deloitte reviewed the list and selected interviewees on the basis of acquiring information. Initial interviewees included individuals who could provide general knowledge about the topic. Additional interviewees were then selected based on those interviews.

## 1.2 Summary Findings

13. We present our summary findings in this section based on our observations and professional judgement related to interviews, public source searches and document reviews. Our findings are a representation of our assessment of information received to create a chronology of events, an assessment of policies for potential non-compliance, a determination of who knew what when, including key decisions, and a root cause analysis related to ACM pipe fragments.

### 1.2.1 Chronology of events

14. We present our chronology of events as a summary of the key events that have been brought to our attention throughout the investigation that we believe are relevant to the purpose of this report. It is not meant to be an exhaustive listing of events that occurred from 2000 to date. The chronology of events is separated into four periods of time to facilitate reading and to group the series of events. They are summarized below.
15. **Time Period 1 – Prior to the year 2000:** This period covers the history related to the installation of the sanitary sewer pipes and the origins of “Lot 106”.
16. **Time Period 2 – 2000 to 2015:** This period relates to events that occurred which led to the decisions to replace the sewer pipes within the Community. It was during this period that documentation shows that sewer pipes throughout the Community were made from four different materials: AC pipe, PVC, concrete, and sandstone. This period also highlights some operational challenges that MCK faced related to landfill in the Community.
17. **Time Period 3 – 2016 to 2018:** The events that occur during this period relate to the commencement of the sewer system replacement work. During this period, AC pipe was actively being removed from the ground and large volumes of landfill from this work were being used to fill Lot 106. This period reflects the first known instance of when concerns about ACM pipe fragments were being raised within MCK and includes events leading up to the discovery of ACM pipe fragments in residential areas on Lot 106.
18. **Time Period 4 – 2019 to 2020:** The events that occur in this period show the evolution of the asbestos issue as it became widely known within the MCK organization, by the Council of Chiefs and by the general Community. The events portray the challenges that the situation has created with more locations other than Lot 106 being identified as having ACM pipe fragments in the landfill, lack of training of employees, and remediation efforts undertaken by MCK related to cleaning the landfill. The period also provides context related to the actions that MCK undertook once the issues were brought to the attention of Legal Services and the Council of Chiefs.

### 1.2.2 Legislation, policies, procedures, and frameworks

19. MCK as a First Nation Community has historically and consistently exercised jurisdiction within their Community by adopting and developing rules and regulations. Some of these rules and regulations may be influenced from both Canadian and US regulations for operations. MCK’s operational units are guided by internally developed operating policies, procedures, and frameworks.
20. Given our understanding that external landfill entering the Community was likely not the primary source of ACM pipe fragments being found in the landfill within the Community, we have focused our review of legislation, policies, procedures and framework on the movement of landfill within the Community during the Review Period. Deloitte conducted an assessment on the legislation, policies procedures and frameworks that contained possible instances of non-compliance that appears to have contributed to the events.
21. We noted non-compliance of the MCK laws as they pertain to the Kanien’kehá:ka of Kahnawà:ke Law and the Sanitary Conditions Law. Landfill policies and procedures were unclear as they related to certain items through the Review Period, but the overall intended use and purpose of these documents were not complied with. We also noted non-compliance as it related to training and communication.

### 1.2.3 Who knew what when

22. Deloitte summarized observations of who knew what information at what point in time. We have represented our findings in three main sections which contribute to the final section discussing the sequencing of decision making over the review period.
23. **Existence of AC pipes:** Our observations are that it was generally known by the Capital Unit and Public Works employees that MCK's sanitary sewer system contained some pipes made from AC pipe from at least 2011.
24. **ACM commonly known to cause health issues:** Despite training being available related to the dangers of working with asbestos materials from OSHA since 1994, we understand that those working directly with AC pipes either received no training and/or information, or received conflicting information related to the potential hazards of AC pipe. As a result, we have not been able to confirm if any workers knew the potential dangers of working with AC pipe. We confirmed that key personnel of KEPO and PSU were both aware of the potential dangers of asbestos in 2016 when research was performed and shared among Units. We also confirmed that the management of the Capital Unit would have had knowledge on the potential hazards beginning in 2019 following being sent to training.
25. **Presence of ACM pipe fragments in landfill:** Our review notes that the presence of ACM pipe fragments appearing in landfill occurred (on a regular basis) as early as 2012 as this is when the sanitary sewer replacement work in the Community began; however, the bulk of the AC pipe removals were in 2016. We understand that ACM pipe fragments were contained in landfill during extraction due to breakages. Internally, the presence of ACM pipe fragments was known to PSU, KEPO, Public Works and the Capital Unit in 2016 when issues were raised about pieces being found in the Community. Legal services, the Council of Chiefs and the general Community were made aware in 2019.
26. **Sequencing of decision making:** Based on the information gathered, it appears as though no strategic decision making on the subject of asbestos was made until 2019 when Legal Services was made aware of the issue as a result of overhearing a conversation. Prior to that, concerns were raised at various points in time, from KEPO and PSU, and the appearance of ACM in landfill was dealt with on an individual basis by the Capital Unit who operated under the premise that the materials did not pose a health risk. Following 2019, the Council of Chiefs undertook decisions to create an action plan and work towards remediation efforts.

### 1.2.4 Root cause analysis

27. As part of our mandate we were requested to provide a determination of the root cause of events that took place and actions that were taken resulting in the deposits of ACM contaminated soils throughout the Community. The determination of a root cause of the issue is based on our observations resulting from interviews and documents reviewed. It is our observations that the cause of the issue did not stem from one issue in isolation, but a combination of events, allowed to compound through history.
28. For context, we note that the AC pipes were reported by experts as being a non-hazardous material when they are in the solid state, operating as AC pipe as part of the sewage system. It was the replacement of the AC pipe that created ACM pipe fragments and an associated potential risk. The replacement of the Community's sanitary sewage system was a requirement given issues related to leaks, water infiltration and flow. The existence of AC pipe as part of the sewage system was known when the replacement work began, thus it is our determination that the cause of ACM pipe fragments in landfill was not a result of lack of knowledge of the presence of asbestos.
29. Our observations note that the root cause of the issue was a result of several underlying issues that developed over the 20-year span of the Review Period and evolved over time. We believe that the core contributing factors to the existence of ACM pipe fragments in the landfill was a result of the items listed below (which are further detailed at Section 4.4). Each item built on the other allowing the situation to escalate over time. The key contributing factors as we observed them are:
  - Different levels of enforcement of rules and procedures for external movements of landfill versus internal movements of landfill;
  - Perception differences about the hazards associated with the state of the asbestos-containing materials;

- Lack of training for those working with the material and those monitoring the safety of the Community;
- Construction methodologies and culture in the construction industry:
  - Construction methodologies in dealing with AC pipe extraction did not differ from that of other pipe;
  - Workers learn construction methodologies through on the job experience so legacy methodologies are adopted;
  - There appears to be a culture in the industry where workers do not want to disrupt established construction methodologies; and
  - Workers don't have outlets to report workplace concerns;
- Lack of effective collaboration and communication between MCK Units.

### 1.3 Recommendations

30. There are 16 recommendations listed in this report for MCK's consideration related to operational improvements as they relate to the issue of ACM pipe fragments in the landfill. This section provides a summary of the recommendations. The implementation of these recommendations is suggested to help improve MCK operations and prevent situations similar to the ACM pipe fragments in landfill (which created potential health hazards to MCK and the Community) from occurring in the future.
31. Our recommendations include the following areas of improvement:
  - Assessment of legislation to ensure completeness and proper Provincial or higher standards are applied.
  - Ensuring that policies and procedures are not ambiguous, not open to individual interpretation and are followed.
  - Ensuring that employees are trained, understand policies, and agree to abide by them.
  - MCK should come to an agreement on the difference between AC pipe and ACM in a hazardous material policy and that all Units agree to abide by the handling procedures.
  - Ensuring that employees have a method to report work concerns.
  - Ensuring that all MCK Units are collaborating to deal with matters affecting the Community in a timely manner.

### 1.4 Conclusion

32. Various events and decisions made throughout history contributed to the widespread asbestos issue within the Community.
33. The removal of AC pipe from the sewer system was part of a large sewer replacement project which was required due to aging pipes. The project started in 2012 and sewer pipes to be replaced were a combination of cement, PVC, and AC pipes. The Capital Unit did not have separate methodologies to remove the three types of pipes. The construction methodologies used sometimes cracked the pipes and pieces would end up in landfill. At the same time, the Capital Unit was working to build up the land for residential use in Lot 106. The Landfill Office was not involved in this work.
34. The Landfill Office oversees the monitoring and movements of landfill within the Community. Much of the landfill requests from Community members are fulfilled by the Capital Unit (as they acquire landfill from their excavation projects). The Landfill Office had a history of operational challenges up to the end of 2015 which led to a historical lack of accurate record-keeping, a lack of monitoring of and/or lack of enforcement of rules for internal movements of landfill.
35. Following a reorganization of the Landfill Office in 2015 and the establishment of the Landfill Authority, the Landfill Office started noting instances of soil containing debris. These issues were brought to the attention of the management of the Capital Unit who did not see the matter as being a concern.

36. The Landfill Office followed up on the issue with KEPO, PSU and the Executive Office in 2016 and 2017. In 2017 and into 2018 more concerns were being raised and more discussions were held internally. The Capital Unit's position was that the materials were not hazardous thus, did not pose a threat and/or was not an issue. Work continued to occur with the buildup of landfill on Lot 106 area.
37. It wasn't until MCK's Legal Services and the Council of Chiefs (and subsequently the Community) became aware of the situation in 2019 that key decisions were made to stop work, develop remediation plans, and create construction methodologies to handle and store AC pipe and ACM pipe fragments.
38. The Community continues to work through these elements; however, differing viewpoints on the hazardous state of the AC pipe and ACM pipe fragments have created challenges with the application of consistent procedures and treatment of the materials.
39. The implementation of recommendations to establish a consistent, MCK-wide baseline of the level of hazard that ACM presents in its various states (i.e., in the ground, during extraction, in landfill materials and while being stored) is a key first step in establishing a starting point from which all MCK units can create policies, follow guidelines, and communicate effectively within the organization and to the Community. MCK must have a single viewpoint on the matter which is communicated clearly. This will create consistent methods to manage remediation efforts and future handling of AC pipe and ACM pipe fragments. Once this viewpoint is established, other recommendations like the effective collaboration between units and training for employees can follow.



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