Meeting Minutes
Coordination Committee
Monday June 14, 2021, 3:00 – 5:00 pm
Online Webex

Present:
Dr. Bruce Newbold, (Chair)
Andrea McDowell, Healthy and Safe Communities, City of Hamilton
Andrew Sebestyen, Stelco
Barry Duffey, Citizen
Carl Slater, Citizen
Dr. Denis Corr, Corr Research Inc.
Geoffrey Knapper, HIEA
George McKibbon, McKibbon & Wakefield Inc.
Giuliana Casimirri, Green Venture
Heidi Levitsky, HIEA
Jahanvi Desai, Healthy and Safe Communities, City of Hamilton
John Lundrigan, ArcelorMittal Dofasco
Kerry LeClair, Councillor Nann's Office, City of Hamilton
Lucas Neil, Hemmera
Mainul Husain, Health Canada
Mark Smithson, Citizen
Nico Strabac, Mohawk College Sustainability Office
Sara Yonson, Hamilton Oshawa Port Authority
Shirook Ali, Ecosystem Informatics Inc.
Spencer Skidmore, Planning and Economic Development, City of Hamilton
Stephanie Gasko, Ministry of the Environment, Conservation and Parks
Stephen Burt, Ministry of the Environment, Conservation and Parks
Tiffany Singh, Planning & Economic Development, City of Hamilton
Timothy Hung, Ministry of the Environment, Conservation and Parks

Regrets:
Adriano Mena, Citizen
Alexandra Graham, Citizen
Brian Jantzi, Citizen
Charles Hostovsky, Citizen
Christine Newbold, Planning and Economic Development, City of Hamilton
Dan Dobrin, Ontario Ministry of Environment & Climate Change

Don Curry, Public Health Services, City of Hamilton
Fran Scott, McMaster Institute for Health Equity, McMaster University
Heather Donison, Green Venture
Kate Flynn, Mohawk College
Katie Chan, U.S. Steel Canada
Kayli Thorp, Mohawk College
Ken Smith, Citizen
Linda Campbell, Energy Office, Public Works, City of Hamilton
Lubna Hussain, Ministry of the Environment, Conservation and Parks
Lynda Lukasik, Environment Hamilton
Matt Adams, University of Toronto
Matthew Lawson, Public Health Services, City of Hamilton
Megan Sutton, Green Venture
Myles Sergeant, Trees Please
Natalie Stacey
Patrick Quealey, Environment Canada
Paul Panabaker, Energy Dimensions
Peter Topalovic, TDM, PED, City of Hamilton
Rachel Johnson, TDM, PED, City of Hamilton
Rob Conley, Public Works, City of Hamilton
Sally Radisic, Public Health Services, City of Hamilton
Sarah Styler, McMaster University
Shelley Rogers, Public Health Services, City of Hamilton
Tom Chessman, Energy Office, Public Works, City of Hamilton
Trevor Imhoff, Healthy and Safe Communities, City of Hamilton

1. **Introductions & Welcome**

2. **Approval of May 10, 2021 Minutes**
   - Approved

Presentations:

3. Ecosystem Informatics on Pollution & Air Quality (30 minutes), Dr. Shirook Ali ***(Presentation Attached)***

- Ecosystem Informatics Inc. started as an answer to call for proposals by the Ministry of Transportation Ontario. MTO looking for methodology to measure GHG emissions for potential expansions they do on highways, to report on impacts on environment
- Focus is on analytical and real time measurements. Employ modelling techniques to predict GHG emissions.
- Follow EPA modeling tools – Motor Vehicle Emission Simulator (MOVES), Air Dispersion Modeling (CAL3QHC), AERMOD modeling (odors, VOCs). These are good tools – they take input parameters such as the number, age, classification of vehicles, meteorological insights to give you predictions about air quality.
- Case study highlight: Comprehensive pollution study along a 5km corridor in Brampton for 2041 transportation planning

    - Wanted to understand impact of changing the number of lanes on one of intersections:
    - Three proposed scenarios for 2041
        - No lane expansion
        - Add another lane for high occupancy (carpooling),
        - Add another regular lane
    - Two time stamps were reviewed: morning and afternoon rush hours.
    - The comprehensive study used MOVES and results were interesting:
        - Change in number of vehicles did not always have a linear relationship with greenhouse gas emissions.
        - The contribution of pollution (for some intersections) was much higher than the actual increase in number of cars. Required further study of other parameters affecting air quality.
    - Parameters that were taken into account for the study included:
        - Electrification estimates (number of electric vehicles e.g. electric buses)
        - Temperature rise anticipated in 2041
        - Car classifications on the road
    - Learnings from the study:
        - To understand changes in geographical location, we need to study and understand changes across the whole network – go beyond just the intersection in question and the 5km corridor.
        - Drivers could change routes due to the lanes and shift to smaller roads, thereby producing different results.
- What is measured can be managed, there is no escape from real measurement. Modelling is good for estimation, but does not give reality.
- There is a complexity and challenge to the problem of properly measuring ambient measurements.
- To measure ambient air quality, two types were used:
    - Alphasense – low cost sensors, accurate raw data is very critical
    - Libelium – processed to see difference in measurements in parts per million
- For good ambient air quality measurements, one must look beyond parts per million to parts per billion to be able to see variations at granular level.
- Importance must also be given to the selection of the sensor in hardware sensors, and how data is processed in looking at the reliability.
- ESI's value proposition: "CanAIry: making the invisible visible"
    - Hyper local data collection; example of a heat map for the City of Waterloo created by a sensor on a moving vehicle.
    - Sensor has modular design – collects greenhouse gas information, air quality information, as well as meteorological data.
    - Data is then transmitted to the cloud – AI does calibration and analysis
    - Result is real time data and insights, presented on a web-based dashboard
    - There is a multi-level calibration that is put on the system – at the device as well as the system level.

- Have had three pilots so far. Produced a heat map identifying pollution hotspots from Toronto and Waterloo, passing through Brampton and Mississauga with the use of just one monitoring unit placed on a vehicle.
- Even after multi-level data calibration, the data is verified to confirm correlation to government stations
- The ESI team is comprised of experts in backgrounds of hardware and software, analytics and operations.

Q&A:

- AI accuracy concerns. How confident are forecasted projections?
  - AI also calibrates with respect to environment. Because the unit is moving around, data can get inaccurate due to wind, etc., however the unit calibrates itself so the data is where it needs to be.
  - AI also does predicted modeling: in case of absence of spots of data, AI can make predictions to fill in gaps
  - AI calibration and prediction helps with accuracy, helps provide knowledge and alerts for concerning trends in the near future
- Is there a need for further trials? Potential for pilot project opportunities?
  - ESI is open to pilots using own or other vehicles (for example City vehicles).
  - Collected data can help produce heat maps for the city, can help identify vulnerabilities and areas that need attention.
  - Can look into measuring for a week in each season and comparing throughout the year.
  - If there is a particular activity or initiative of interest, can monitor air around the area and benchmark/analyze.
- Key user of the technology?
  - Depends on the use case.
    - Government or cities when the purpose is to understand vulnerabilities of the city or to identify prime locations for tree planting, or where to expect high risk citizens of respiratory illnesses.
    - Industries when they want to evaluate the success of mitigation efforts.
    - Product can also work indoors, so another use case is for capacity and energy management and for regulation for indoor air quality.
- What were the assumptions for vehicle electrification used for 2041 Brampton Case Study?
  - Reports with projections for vehicle electrification were used. These included % of total vehicles which would be electric, classification of these vehicles, assumptions for meteorological data (such as expected heat/temperatures).
- From an industry perspective, currently hire firms fulfil the use case mentioned. Wondering if consulting firms are aware of ESI's value proposition.
  - Working towards increasing awareness
  - Part of pipeline is to collaborate with engineering consulting companies.
- Wondering how involved MTO was in Brampton project

- Original project with MTO had regular attendance from members of environment policy. Were extremely involved and keep to share expertise – gave ESI direction with which modeling to use, what gases to look at.
- ESI has been trying to get in touch with MECP

ACTION: Stephanie to send MECP contact info to Shirook
ACTION: Possible collaborations to be directed to shirook@ecosinfo.ca

Discussion Items:

4. Equity and Diversity Policy (15 minutes), Bruce Newbold

- Goal is to move this document from draft to a formal policy adopted by Clean Air Hamilton.
- CAH membership is open to anyone interested. However, the critical point is around voting rights. Must make sure that particular groups are not overrepresented or that committee is skewed in any direction. CAH strives to be science and evidence based, and emphasizes consensus-building.

Group Discussion:

- CAH is diverse, however, there is a need for indigenous representation. There is a significant gap at this time.
- Need for a proper mechanism for voting structure. Core membership that is responsible for voting, approvals, the wider committee to be open to membership. Depending on specific issues, some members join for 1-2 meetings.
- Question regarding the final step of this process – would City of Hamilton Legal or Council have to review/approve?
  - Does not need to go to Legal or Council for review or approval, but good to have another team go through it
- Terms of Reference were approved by this committee, this was a good approach and what we should use
- Wondering what the process would be to expand the quorum on the voting process?
  - An option could be giving a number of votes for community membership, a number of votes for NGOs, a number for academics
  - Members are free to express their views
- Propose that the working group for the Terms of Reference reviews what we have so far and make recommendations.
- Can perhaps also do a renewal.
  - **ACTION: Carl to send across his thoughts about the renewal of Clean Air Hamilton and how it was done 15 years ago.**
- Some members to conduct a historical overview of the last 25 years of CAH. Prepare a summary of findings and reflect on CAH achievements.
  - **ACTION: George, Denis, Barry & others to meet.**

- Propose that the current EDI Policy be adopted in draft form, pending secondary discussion around CAH voting & renewal.
- The EDI document outlines steps for how CAH is reflected in the community, and how the committee engages and talks about meeting air quality needs in the city of Hamilton.
- No opposition to the motion, the current EDI Policy is approved in draft form with a review to come.

5. Draft Land Use Compatibility Guideline (20 minutes), George McKibbon ***(Presentation Attached)***

- Presentation has been prepared after a thorough review of the document and discussion with other planners.
- The guideline is divided into four sections
    - Overview & Policy context
    - Technical aspects – tools to be used by municipalities & mitigation
    - How to incorporate land use compatibility into planning
    - Appendices
- Comparison table taken from MECP's June 8th presentation compares the previous guidelines. There are different classes of industrial uses - 5 classes instead of the original 3. More intricate than what existed previously.
- New guideline also provides listings of separate industries – steel, smelting, and key areas of influence where adverse effects may be expected. Research being undertaken on the minimum distances for sensitive areas.
- Areas of influence &minimum separation distances
    - Different from the existing D6 guidelines, much larger now
    - Distribution is broadened in generic industries and specific industries
    - There are substantially greater areas for newly added classes 4 & 5
- Issues that have been identified and suggested to MECP
    - Issue 1: Key terminology is undefined. Unsure of how some technical terms are to be used.
    - Issue 2: Stronger emphasis on property boundary separation distances required.
    - Issue 3: Considering that site specific and technical standards exist for the steel industry, cumulative effects must be studied. Extent of area affected probably expands from harbor to escarpment. Needs further assessment. Suggestion: provide more discussion for how an alternative standard setting is to work.
    - Issue 4: Zoning bylaw holding and temporary use provisions are proposed to be used, however this is an inappropriate use of Planning Act provisions.
    - Issue 5: Clarification for who a qualified person is. Engineers are listed, however, concern is that these professionals are not qualified for the adverse effects analysis. They focus on calculations, and suggestion is to consult with other qualified people for adverse effects analysis. Can include Public Health officials, social scientists, and planners.
- Next steps:

- EBR comment period ends July 3rd.
- Approvals may occur at the end of 2021 or early 2022.

Q&A:

- Hitting on a lot of important issues, however, MECP generally will not provide rigid definitions. Mostly cautious, ambiguity is allowed as long as reasonable interpretations are made in good faith.
  - Difficult as a planner to explain in a hearing, therefore in need of some guidance for the objective explanations
- Appreciate the summary of the key issues and insightful overview. Rather lengthy and difficult document.
- Comments and/or concerns despite whatever the anticipated outcome or response may be are welcome by July 3rd.

6. Air Pointer Siting Matrix Update (10 minutes), Andrea McDowell

- Summary of changes since this was last presented:
  - Links to resources used have been added into the matrix. Canada census has been used, so no worries about data being out of date.
  - Increased score of health related complaints to 3 from the original 2 to make it weigh more heavily.
  - Added qualification to proximity – where possible, distance from air pointer can be used.
  - Added a category for number of complaints. If there are a series of complaints from the same neighbourhood, these will be weighed more heavily.
- Issue with using the code red terminology; so the idea of using particular specific criteria was explored. The easiest to access and public data was census rent poor. Will help determine poverty impacts on health impacts.
- Next steps:
  - Will be in use for a period of 2 years
  - Hope to use matrix twice before updating and revising
- Matrix has been refined after feedback received, hope is to receive final comments today (if any arise) and deploy it.
- Air Siting Pointer Matrix is approved by Clean Air Hamilton.

7. Upwind Downwind Lunch N' Learn Update & Potential Summer CAH Meeting Gap (5 minutes), Bruce Newbold

- Latest CAH Lunch N Learn took place last Tuesday with Dr. Adams' presentation on Air Pollution Sensors and how they can help.
- Thinking that this will be the last Lunch N Learn
  - Take a pause anyway for summer months.
  - In the fall, can start planning for 2022 UWDW conference. Don't want to dig into pieces for next conference. Unless topics of urgency or particular interest come up, pause on Lunch N Learns.

- Thank you to Heidi and Trevor/Jahanvi for support in organizing the events, brought in over 50 participants at each Lunch N Learn.

- CAH typically takes a month off over the summer.
- We have a presentation scheduled for July by MECP, however, MECP is flexible and can adapt to changed timelines
- Members who requested the topic be presented by MECP are absent in July due to vacation, so is CAH Chair, July meeting to be cancelled for a summer break.
- CAH will meet next on August 9th 2021.

8. Clean Air Hamilton Report Subcommittee (5 minutes), Jahanvi Desai

- Started putting together an outline for the Clean Air Hamilton Annual Report 2020, already sent out asks to some stakeholders, thank you for support!
- Open call for subcommittee members. Responsibilities: meet twice/thrice throughout the rest of the year, provide feedback and edit the report prior to CAH approval.
- Interested members:
    - Stephanie
    - Heidi
    - Bruce
    - Carl
- Stick to same report outline as the past, has worked for the best.

Member Updates:

Andrea McDowell, Healthy and Safe Communities, City of Hamilton
- No updates

Andy Sebestyen, Stelco
- No updates

Barry Duffey, Citizen
- No updates

Carl Slater, Citizen
- Looking forward to working on the Annual Report Subcommittee

Denis Corr, Corr Research Inc.
- Were able to do GIS Air Quality Mapping for Fresh Air for Kids with the help of MECP.
- Thinking about the need for steel industry to face up to the fact of their climate change emissions contributions. Federal government looking into small modular reactors (SMRs), which could be a good alternate electricity generation source for the steel industry, a way to reduce emissions.
- Appreciate the Lunch N Learns – the last one was really useful because the real world experiments with the purple air network were eye-opening.

Geoffrey Knapper, HIEA

- No updates

George McKibbon, McKibbon & Wakefield Inc.

- No updates

Giuliana Casimirri, Green Venture

- Wrapped up some schools for Fresh Air for Kids, some schools are on waitlist for Fall 2021.
- Supporting Green Venture's bike campaign. Starting a new project to inventory tree locations to form strategies for tree plantations. Goal is to improve tree cover in lower income neighbourhoods.
- Federal greener homes grant (additional 5000 dollar grant support for energy efficiency) has resulted in an increase in interest in energy auditing. Focus is on increasing efficiency and fuel switching.

Heidi Levitzky, Hamilton Industrial Environmental Association

- No updates

John Lundrigan, ArcelorMittal Dofasco

- Steel industry recognizes contributions to GHGs. The Canadian Steel Producers Association announced its Call to Action on climate change with ambitions to get to net zero by 2050.
- AMD currently has a team working on assessing different options to get to net zero. Hopefully we hit some significant milestones soon.

Nico Strabac, Mohawk College

- Kate Flynn, Mohawk College is on maternity leave. Bianca Caramento (Manager, BACCC) has assumed the acting position for Kate. BACCC is currently finalizing work plan to tackle industry emissions in Bay area, will share updates with the group soon.
- Alyson has been promoted to manager position to fulfil Kate's other role.
- Contact information for both available upon request.

Shirook Ali, Ecosystem Informatics Inc

- No updates.
- Pleasure to be here and looking forward to being in future calls.

Spencer Skidmore, Planning and Economic Development, City of Hamilton

- Bayfront Industrial Strategy consultation upcoming at the end of summer. Plan to bring it to committee either winter of this year of early in 2022.
- Draft Community Energy and Emissions Plan is currently being finalized. Consultation to take place either Q4 of this year or Q1 of next year, after which the final draft will be presented for adoption by council.

Stephanie Gasko, Ministry of the Environment, Conservation and Parks

- No updates

Stephen Burt, Ministry of the Environment, Conservation and Parks

- No updates

Sara Yonson, Hamilton Oshawa Port Authority

- Port is continuing LNG bunkering. Since the opening of seaway, more vessels are coming to harbor to refuel with LNG.
- Not going to meet IMO GHG targets, but LNG is a transition fuel and therefore a step in the right direction.

Tim Hung, Ministry of the Environment, Conservation and Parks

- No updates

Jahanvi Desai, Healthy and Safe Communities, City of Hamilton

- Previous Lunch N Learns' Zoom Recordings are available on the Clean Air Hamilton website.
- The RFP for 2021 Funding is currently under review with Procurement. Will let members know when RFP is live.
- Now that summer break is finalized, will send out meeting time holds for the rest of 2021.

Kerry LeClair, Councillor Nann's Office, City of Hamilton

- Ward 3 Office is cohosting an air quality workshop – Thursday, June 17th
- Please email Ward 3 for registration information if you are interested in taking part.

Dr. Bruce Newbold, Chair

- Reminder that July meeting is cancelled.
- Hopefully can plan to meet in person in the near future. Accommodations to be made for virtual participation as well.

Next meeting

August 9, 2021 3:00-5:00pm WebEx