

# Clean Air Strategic Alliance (CASA) Board of Directors Meeting



September 7, 2023

Calgary and Zoom Conferencing

## In attendance:

### CASA Board Directors and Alternates:

Alison Miller, Petroleum Products  
Amber Link, Local Government  
Ann Baran, NGO Rural  
Anna Kauffman, Forestry  
Brent Korobanik, Heidelberg Materials North America  
Bill Calder, NGO Urban  
David Spink, NGO Urban  
David Lawlor, Alternate Energy  
Don McCrimmon, Oil and Gas Large Producers  
Holly Johnson-Rattlesnake, Samson Cree Nation  
Jamie Curran, Provincial Government - Environment

Jim Hackett, Utilities  
Kai Horsfield, Chemical Manufacturers  
Mark McGillivray, Alternate Energy  
Martin Van Olst, Federal Government  
Rob Beletz, Mining  
Rob Hoffman, Petroleum Products  
Ruth Yanor, NGO Industrial  
Shane Lamden, Chemical Manufacturers  
Andre Asselin, CASA Executive Director

### CASA Staff:

Alec Carrigy, Anuja Hoddinott, Katie Duffett, Mariem Oloroso

### Guests:

Adi Isaac Adiele, Fort Mackay Métis Nation  
Andrew Clayton, Environment and Protected Areas  
Andrew Read, City of Edmonton  
Ajeev Ramnauth, Environment and Protected Areas  
Cam Lane, Environment and Protected Areas  
Catalina Solano, Environment and Protected Areas  
Colin Jan, Environment and Protected Areas  
Crystal Parrell, Environment and Protected Areas  
Curt Horning, Environment and Protected Areas  
David Lyder, Environment and Protected Areas  
Elizabeth Bell, Peace Airshed Zone Association  
Eric Alailedeoye, Environment and Protected Areas  
Frauke Spurrell, Environment and Protected Areas  
Gary Redmond, Alberta Capital Airshed  
Harry Parenteau, Transportation and Economic Corridors  
Jean Bruce Koua, Environment and Protected Areas  
John Tchir, Environment and Protected Areas

Kalli Herlein, Environment and Protected Areas  
Long Fu, Environment and Protected Areas  
Lynn Lockhart, Environment and Protected Areas  
Maxwell Mazur, Environment and Protected Areas  
Michael Soorojpal, Transportation and Economic Corridors  
Mineneh Uraih, Environment and Protected Areas  
Monica Micek, Environment and Protected Areas  
Naomi Tam, Environment and Protected Areas  
Niranjan Vescio, Opus Inspection, Inc.  
Prabal Roy, Environment and Protected Areas  
Prashant Reddy, Environment and Protected Areas  
Rahul Shrivastava, Transportation and Economic Corridors  
Randy Dobko, Environment and Protected Areas  
Renee Howard, Environment and Protected Areas  
Rhonda Lee Curran, Environment and Protected Areas  
Richard Sharkey, Environment and Protected Areas  
Ruth Mitchell, Alberta Health

Sheila Lucas, Environment and Protected Areas  
Tim Dallmann, International Council on Clean  
Transportation  
Travis Tokarek, Environment and Protected Areas

Wendy Birch, Environment and Protected Areas  
Yayne-abeba Aklilu, Environment and Protected  
Areas

**Presenters:**

Tim Dallmann, *Information Presentation: Heavy-duty emissions control tampering in Canada (Item 5.0)*  
Niranjan Vescio, *Information Presentation: Roadside Optical Vehicle Emissions Reporter III (Item 5.0)*  
Ann Baran and Rob Hoffman, *Roadside Optical Vehicle Reporter III Project Team (Item 6.0)*

**Regrets:**

Dan Moore, Forestry  
Kasha Piquette, Provincial Government – Environment  
Leigh Allard, NGO Health  
Mary Onukem, Métis Settlements General Council

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**Executive Summary**

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The board discussed the draft strategic plan that was developed based on discussions at the January 2023 workshop and feedback in the April 2023 board meeting. The board provided additional comments, mostly around the Vision for CASA and the Vision for Clean air. The board conditionally approved the draft strategic plan, pending minor updates to be made by staff, and finalizing the vision statements, which will be informed by the forthcoming Mandate and Roles Document from EPA. The strategic plan is expected to have final approval at the December board meeting.

The board shared and discussed their current priorities that are aligned with the strategic plan and two recurring projects. Several sources of alignment were noted (e.g., Governance and membership, and air literacy). The board noted that there was an opportunity for CASA to participate in the Air and Waste Management Association's North American conference in Calgary in June 2024. The board agreed to forming a committee to consider potential topics, produce an abstract, and coordinate with other groups who could participate with CASA.

Presentations were provided to explain two key information sources being used by the ROVER III Project Team to develop their recommendations. The team wanted to ensure the board is familiar with and understands the information they are using to inform their recommendations. Both presentations are available on CASA's website.

The first presentation was from Tim Dallmann from the International Council on Clean Transportation, who provided a presentation on a modelling study focused on heavy-duty emissions control tampering in Canada. The purpose of the study was to assess the issues that motivate and facilitate emission control systems tampering of heavy-duty vehicles in Canada. The study also aimed to estimate the impacts of tampering on emissions and public health.

The second presentation was from Niranjan Vescio from Opus Inspection, Inc., who provided a presentation on work they had completed measuring emissions from light- and heavy-duty vehicles for the ROVER III project team. Their report was recently approved by the project team and is now publicly available on CASA's website.

The ROVER III Project Team requested a decision from the board to extend the project deadline to April 2024 to allow them time to develop their recommendations. The request was approved.

The next meeting will be held in Edmonton on December 14.

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**Meeting Summary**

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Jim Hackett convened the meeting at 9:05 a.m.

## 1 Administration

### 1.1 Convene business meeting, introduction, and approve agenda

Participants were welcomed to CASA's 110<sup>th</sup> general business meeting. There was a roundtable of introductions.

The draft agenda was included in the meeting package. There were no changes to the agenda.

***Decision: The agenda was approved by consensus.***

### 1.2 Meeting summary from the April 13, 2023, Board Meeting

Minor clarifying edits were submitted to staff following the April meeting. These were incorporated in the revised version of the summary, which was included in the meeting package.

#### Discussion

- The acronym "MRD" (Mandate and Roles Document) should be added to the acronyms section.

***Decision: The board approved the summary of the April 13, 2023 meeting which will be posted to the website.***

### 1.3 Review actions from the April 13, 2023, Board Meeting

There were three actions from the April board meeting. A written update was included in the meeting package.

On the third action item regarding the new Air Zones Report, Andre circulated an email from Environment and Protected Areas (EPA), sharing the newly released report and is arranging a presentation from EPA on that report for CASA's members and interested parties.

### 1.4 Process to revise CASA's Multi-Year Communications Strategy

This item was to discuss and approve a process to update CASA's next Multi-Year Communications Strategy. The process to undertake this task was outlined in the meeting package.

## Discussion

- The proposed timelines don't seem right.
  - The intent is to approve the process today, and staff will begin reviewing communication processes and gathering input from board via survey. Staff will update the draft strategy to bring to the executive committee for a first look in March, and over changes to date with the board in April 2024 meeting. Board edits would be requested over the summer of 2024, and final Board approval would be sought at the September 2024 board meeting. Staff will ensure the timelines and process are followed.
- The strategic plan and communications strategy should align to cover the same time period.
  - There were no objections to this suggestion and the communications strategy will cover until 2027 to align with the end of the strategic plan.
- Under Goal 1, Objective 1.4 of the current communications strategy, regarding performance measures ensuring consistent feedback and CASA's recommendations. Is this referring to all of CASA's recommendations or only those regarding the communications strategy?
  - That refers to all CASA's recommendations. Staff have been working on updating the implementation status of all recommendations made since 2018. This will be made part of the regular workflow moving forward.
- Regarding Goal 3 of the current communications strategy – CASA's opportunity to be a nexus for networking for different air quality communication groups - the Non-Point Source (NPS) project team had a workshop to gather and to align messaging amongst different air groups. CASA could promote literacy and communications by having another workshop like that.
- The current communications strategy includes the word "partners" throughout the document but there was previous discussion about removing the word "partnership". Is the wording correct and can it be made consistent throughout?
  - The conversation around using the term "partnership" and whether it might be problematic happened during the discussion around the strategic plan and had to do with "partnership" having a formal definition that described a legal relationship. Since then, the latest draft of the strategic plan now refers to CASA as an "alliance" rather than a "partnership", and a more precise list of groups that CASA interacts with is included throughout. For the communications strategy, there may be a broader group of people, groups, or communities that CASA might interact with, particularly as we begin to reference improving air literacy.

***Decision: The board approved the process to revise CASA's Multi-Year Communications Strategy with the noted changes by consensus.***

**Action:** Staff will take these comments on the current strategy and track them for the first draft of the updated strategy.

## 1.5 CASA Board Members SharePoint Demonstration

To provide better communications support to the board, a SharePoint platform was created as a central information hub where board members and support staff can access information relevant to CASA at any time. Preceding the board meeting, an invitation to join and access the SharePoint group was distributed to board members.

Katie Duffett provided a brief demonstration of how to access board documents online via SharePoint. Highlights from the demonstration were as follows:

- The SharePoint site is intended to supplement the existing communication to the board, not replace it. Board members will still receive emails from Andre and Anuja. Nothing will be posted to SharePoint that you will not otherwise receive over email.
- Access to SharePoint will need to be granted by invitation only by Katie for security purposes. A request for access should come up when you try to open a SharePoint link.
- The top portion of the main page includes news and emerging issues (e.g., newly released reports) and a calendar (for executive meetings, board meetings, or other relevant deadlines).
- Lower on the main page are links to documents for review and information on board membership, orientation, meeting packages, and active project teams.
- The sector profiles that each sector completed and sent to Anuja are on SharePoint. There is a document attached to each sector that can be viewed at any time. Sectors can also update their profile document on SharePoint directly and everyone else will be able to see the changes.
- There is shared editing functionality through SharePoint. For documents that are posted for board member review, edits can be made to documents between meetings. The SharePoint edits would not replace the formal feedback process but could be a useful way to share what people are thinking. There are no documents posted yet for board review.
- Any questions or issues with SharePoint should be directed to Katie.

### Discussion

- The minutes for this board meeting could be used as a trial for shared editing on SharePoint.
- Some board members noted they have firewall issues.
- Board members will be asked to provide current bios to be posted on SharePoint.

**Action: Staff to post the minutes from this meeting to SharePoint to trial shared document editing.**

**Action: Board members will be asked to provide current bios to be posted on SharePoint.**

## 2 Strategic Plan

The purpose of this item was to conditionally approve the draft Multi-Year Strategic Plan. The strategic plan (SP) was drafted initially following a workshop in January and revised following discussions at the April board meeting. The board was asked to give conditional approval for the strategic plan (the condition being that the plan would likely need to be updated once the

Mandate and Roles Document (MRD) from EPA was provided). The board members offered additional comments, summarized below.

### Discussion

*These three contextual notes were added after the meeting to inform the discussion section below:*

*1. CASA's 2012 SP was the most recently approved SP, and its Vision statement was "The air will have no adverse odour, taste or visual impact and have no measurable short- or long-term adverse effects on people, animals or the environment."*

*2. During the 2018 strategic planning workshops, the group suggested that CASA's approved 2012 Vision statement should be renamed to a Vision for Clean Air, and that a separate Vision for CASA (as an organization) be drafted, which read "The air has no adverse odour, taste, or visual effect, or measurable, adverse impacts on the environment, communities, or the economy." This Vision for CASA was never approved as the draft SP was never approved.*

*3. The GoA's Clean Air Strategy has a Vision as well, which reads "Our vision is that the Air Quality Management System supports healthy people and ecosystems and strives to enable continued economic growth without compromising air quality."*

- Visions

- CASA's vision in the latest draft has changed from what is on the CASA and EPA websites. Not sure why that changed as there was no discussion on it before this change was made. There were no track changes or comments to indicate that it had changed and why.
  - That was unintentional as it was taken from the draft 2018 SP rather than the approved 2012 SP.
- In April, the board agreed to include two visions in the SP, and there was extensive discussion on the "Vision for CASA" and the "Vision for Clean Air". The discussion centered around whether elements of the Vision for Clean Air should include wording changes that were discussed as part of the draft 2018 SP and whether it was appropriate to make changes without further discussion. Some highlights from the discussion were:
- Vision for Clean Air (which was formerly CASA's Vision from 2012)
  - In the draft 2018 version, the word "people" was replaced by "communities". Some board members would want more discussion if this edit were adopted as there could be multiple interpretations of what is meant by a "community". Removing reference to "short or long term" adverse effects is another component that would require further discussion.
  - Other board members liked the new vision as they felt it was broader and liked the inclusion of the economy. They felt that including the economy in the vision strengthened their sector's ability to advocate for clean air, particularly as there were several examples this year where poor air





**Decisions: the board approved CASA's draft 2023-2027 Strategic Plan with the following conditions:**

- 1. Updates will be made to the definitions of the operational principles.**
- 2. Additional examples on NPS pollutants will be added.**
- 3. CASA's vision will be revised. This will occur through a board discussion after the MRD is received.**

**Action: Staff will update the draft strategic plan for discussion at the December board meeting.**

### 3 Discussion on CASA members' priorities in air quality management

This agenda item provided an opportunity for sectors to start sharing and discussing their priorities that are aligned with the draft strategic plan. It was also an opportunity to discuss recurring CASA projects that are part of the air quality management system. The intent was to begin discussions that identify sectors' top priorities that are in alignment with CASA's, and to find a path to achieving CASA's strategic priorities. Each sector group shared their priorities.

#### Discussion

- NGO
  - Alberta may wish to update their Air Quality Health Index (AQHI) values and increase literacy around the AQHI, especially given the recent wildfire situation.
    - British Columbia updated their AQHI because of issues they encountered this summer with high levels of particulate matter (PM) from wildfires. Also, Quebec handles the AQHI differently where PM has its own triggers, aside from other pollutants.
  - The province should ensure that best practices are applied to point- and non-point sources.
  - Alberta should continue with reviews of the Alberta Ambient Air Quality Objectives.
  - The work in Alberta's Industrial Heartland Designated Industrial Zone (DIZ) could be replicated across the province. That project is looking at emission sources that are having the greatest impact on air quality and subjecting them to appropriate emission control, management, and best practices.
    - There is an opportunity to conduct similar work on a systematic basis across the entire province (e.g., how greenhouse gas (GHG) emissions would impact those sources, what best practices are appropriate). CASA's Electricity Framework Review (EFR) work was similar; they have an ongoing 5-year review to ensure that best practices are keeping up with emission control requirements.
    - A presentation on the DIZ project from the provincial government could be a first step.
  - To move forward on the Statement of Opportunity looking at a review of the impacts of emissions on human health and economics of reducing those emissions.

- The US is looking at different GHG scenarios and how that plays into emission reductions for other pollutants. Alberta may wish to conduct a similar exercise.
- Industry
  - CASA may have a role in promoting air literacy. The focus could be on the AQHI, especially with wildfire smoke.
  - CASA could participate at the upcoming Air and Waste Management Association (AWMA) conference in Calgary in June 2024. The board could strike a group to look at how or if CASA could participate to feature the organization. A 30-year perspective and highlights of specific projects (e.g., ROVER, NPS) might be of interest to the conference attendees.
  - Continued study and improvement in non-point source management.
  - The electricity sector noted that recent changes to the federal Clean Electricity Regulation has created uncertainty in the sector that may affect decisions around what to build and what to operate. It would be best to let that process run its course before CASA starts up the next EFR review.
- Government
  - The strategic direction of CASA is the current focus. That will be done in part through the upcoming Mandate and Roles Document. A conversation regarding that document is forthcoming with the Minister. The idea is to explain the current air management system, some key challenges, and how CASA could address them.

### Discussion

- It would be useful to run scenarios covering key emissions to determine what is practical and what isn't to reduce them, under different GHG emission targets. It would be a policy option assessment and economic tool to help set priorities for emission reductions. There is a role for CASA to develop the model through a project team.
- Communications ties into the revitalization concept for CASA. It could help make CASA relevant to government and would also help with health conversations.
- Board members discussed the process to prepare for the AWMA conference next June. They agreed that a small committee should be formed to produce an abstract for CASA to participate in the conference.
  - There was discussion on the board's approval process for the abstract. There was agreement that the abstracts would be shared with the board. The intent would be to identify any objections as opposed to approval.
  - The committee would need to coordinate with other groups to determine how they could participate together for a shared session (e.g., GoA air policy and airshed and watershed stewardship; airsheds).
  - The executive director or a staff member should be involved in the committee as well.
  - CASA could consider a sponsor table and could make use of their new banner and table cover.
  - Initial volunteers were Rob Hoffman, Ann Baran, and Ruth Yanor. Being a member of the AWMA technical committee, David Spink may be asked to contribute as well. A call for members will be circulated to identify other volunteers.

***Decision: The board is forming a small committee to produce an abstract, and coordinate with relevant partners to participate in the Air and Waste Management Conference in Calgary in June 2024.***

**Action: Staff to circulate a call for members for a committee to plan for CASA's participation in the upcoming AWMA conference.**

#### 4 ICCT Modelling Project and ROVER III Results Presentation

Two presentations were provided in support of CASA's ROVER III project. The purpose of these presentations was to explain two key information sources being used by the ROVER III Project Team to develop their recommendations. The team wanted to ensure the board is familiar with and understands the information they are using to inform their recommendations.

The conclusions and recommendations of the presentations and reports are those of the International Council on Clean Transportation (ICCT) and Opus Inspection, Inc. (Opus), not CASA or the ROVER III Project Team. The information from ICCT and Opus will inform the project team's recommendations, which are still under development.

Recordings of both presentations will be available on CASA's website:

<https://www.casahome.org/current-initiatives/roadside-optical-vehicle-emissions-reporter-iii-project-team-53/>

#### **ICCT Modelling Project Presentation**

Tim Dallmann of the International Council on Clean Transportation (ICCT) gave a presentation on their March 2022 report, titled "Heavy-Duty Emissions Control Tampering in Canada". Tim has been a member of the ROVER III Project Team since 2018, and ICCT generously contributed \$100,000 to the ROVER project, which allowed CASA to collect significantly more data.

Tim's presentation summarized work on [heavy-duty emissions control tampering in Canada](#).

This work was funded by Environment and Climate Change Canada (ECCC).

The study objectives were to:

1. Review current provincial and federal tampering legislation.
2. Investigate technology vulnerabilities of modern HDVs.
3. Assess market for tampering devices and services.
4. Learn perspectives of fleet operators.
5. Analyze the emissions and health impacts of tampering.

The presentation highlighted the following areas:

- How emission control devices work.
- Motivations for tampering.
- How tampering is carried out.
- Legislative background on tampering.
- Measures to prevent tampering.

- How modeling of emission and health impacts of HDV tampering is conducted.
- Prevalence of tampering in Alberta and other jurisdictions.
- Data on excess emissions from tampering from 2010, 2019, and projections for the future.
- Health impacts of tampering.

The report's key findings were as follows:

1. Anti-tampering legislation in Canada is insufficient, as many provinces and territories lack statutes prohibiting tampering or enforce prohibitions.
2. Tampering devices are readily available by well-established providers.
3. Tampering leads to substantial increases in pollutant emissions (e.g., each 1% increase in tampering is estimated to result in 57% increases in PM emissions and 15% increases in NO<sub>x</sub> in 2040).
4. Tampering has severe health impacts; a 1% increase in tampering incidence is estimated to lead to 690 excess premature deaths over the next 20 years.

ICCT's policy recommendations were as follows:

1. Canada should explicitly prohibit tampering at the federal level.
2. Steep penalties should be set for the providers and users of tampering devices and services.
3. Inspection and maintenance (I/M) programs must be redesigned to address tampering
4. Remote sensing and roadside emission inspections should be used in tandem as a market surveillance tool against tampering.
5. Future pollutant emission standards should drive the adoption of antitampering technologies.
6. Active measures must be taken to close the knowledge gap around the prevalence of tampering in Canada.

### Discussion

- Vehicle component longevity have been suggested anecdotally to be shortened by new emission reduction technologies. Fuel efficiency also decreases with emission controls, and those associated costs, while seemingly small, can add up significantly over the long distances travelled by trucks. Also, when examining premature deaths, did the study look at population densities where highways were? Did the study include trains that lack emission control technologies that were in the vehicles?
  - The authors did not directly look at durability in this study.
  - ICCT is sensitive to issues around fuel economy but feels that that is not an excuse to tamper purposely.
  - The study includes information on demographics of exposure to emissions to different sources. Modelling considers processes in the atmosphere and demographics exposed to that pollution.
  - There was no information on locomotives in this study but that is something that could be investigated in the future.
- ECCC funded this study, so there must be interest in this area within their department, but the recent update to the *Canadian Environmental Protection Act* did not feature any changes with tampering. Did this report resonate within ECCC? Where will this go?

- ECCC noted that this work helps move towards policy in the future. The direction on where this will go is unclear.
- Can you elaborate on how the US EPA has been aggressive with defeat/ tampering device providers?
  - The US EPA has authority to enforce. Whether that is the most effective approach that they are implementing is open for discussion. Funding and executing programs for enforcement and to understand how frequently it's happening through data collection are also essential.
  - California is doing inspections of trucks and roadside testing to ensure trucks are operating as intended.
- There are fuel additives that can help reduce emissions.
  - Within modern systems, SCR and particulate filters are extremely effective and while these additives may be helpful, their benefits would likely be relatively small and not a substitute for these controls.
- Is the result of 1% increase in tampering leading to a 3% increase in emissions linear? In other words, if there is a 10% increase in tampering, is that a 30% increase in emissions?
  - Yes.
- Can the actual numbers of premature deaths be used in the model for the ROVER study?
  - Yes, they could. ROVER data could be used to refine and constrain ranges in model outputs.
- Where do tampering devices come from? Who manufactures them? I'm wondering if there are alternative paths to stop these devices from being introduced into Alberta.
  - Anecdotally, most sources suggest that tampering devices come from the US but there is no definitive study. There is a section in the ICCT report on vendors that is worth reading.
  - There are Alberta companies that tamper with vehicles. One was recently fined by the US EPA.
  - With enough knowledge, individuals can tamper with software themselves.
  - Enforcement may have more weight at a provincial level than a federal level, as the province could tie offenses to registration, for example, whereas the federal level has no such tools available.

### **Opus Inspections ROVER III Results Presentation**

Niranjan Vescio of Opus Inspections summarized work they had completed for the ROVER III Project Team. Their report was recently approved by the project team and is now publicly available on CASA's website.

Light-duty vehicle testing was conducted using on-road remote sensing between 2020 and 2022 in Calgary, Red Deer, Edmonton, Grande Prairie, and Fort McMurray. There were 49,747 vehicle measurements.

The study conclusions for light-duty gasoline vehicles were as follows:

- Rapid deterioration or malfunction of Alberta light-duty vehicles
  - Most Alberta hydrocarbon measurements were higher than Canadian benchmark emission standards (10% of hydrocarbon measurements were 10x the standards).

- Alberta had much higher average emissions than Oregon, where vehicles are and are not inspected.
- Older pickup trucks (2003-12) are the highest contributors of hydrocarbons and nitrogen oxides relative to other body types (cars, SUVs, vans).

Opus' recommendations based on these results were:

- To develop an awareness campaign promoting check engine light response.
- Implementing a notification campaign for high emitters using remote sensing devices.

Heavy-duty vehicle testing was conducted using remote sensing at vehicle inspection stations in 2022. There were 6,339 vehicle measurements.

The study conclusions for heavy-duty vehicles were as follows:

- Tampering or malfunction are prevalent.
  - ~30% of NO<sub>x</sub> (15% of PM) measurements are 10x emission standards, indicating serious malfunction or tampering.
- 2010 and newer Alberta heavy duty diesel vehicles (HDDVs) emit significantly higher than inspected HDDVs in California.
- HDDVs are a significant source of NO<sub>x</sub>.
  - Dump trucks were the highest emitters and are of concern along the Calgary to Edmonton corridor.

Opus' recommendations based on these results were:

- Implementing remote sensing device screening at vehicle inspection stations, with visual confirmation and advisory notification, especially to fleets.
- Implementing anti-tampering legislation which is lacking in Alberta.

### Discussion

- Why do light duty trucks have higher hydrocarbon emissions?
  - Trucks are used differently than cars. They are used for work or are operated on different terrain, possibly leading them to deteriorate faster.
  - Operating temperatures of trucks could also impact the results.
- Why are Alberta vehicles worse emitters than those in other uninspected areas?
  - The climate in Alberta is harsher, and they might also drive further due to the size of the province.
  - The maintenance cycles are different in Alberta's climate and drivers may not keep up with maintenance schedules properly.
- Where there were cones on the road, were there emissions due to braking and did the study account for biasing emissions low due to deceleration?
  - The sensors are looking for loaded mode emissions. When a vehicle is decelerating, the sensors do not detect a valid measurement and those data points are filtered out.
- What kind of hydrocarbons were detected by the technology?
  - That is unknown, the technology is not speciating hydrocarbons.
- What would be the best method for real-time measurements?
  - Pulling over vehicles would be possible but that would probably be more invasive, and drivers would not appreciate it. Remote sensing would be the best solution.

- Are there low-cost sensors that could be placed on vehicles that could perform a general scan of the exhaust to check for major issues?
  - There are sensors that could be placed on vehicles but not in an effective and efficient way, relative to remote sensing.
- Can education campaigns be used or other regulatory or non regulatory approaches?
  - In Texas, they send a “high emitter notice” and ask them to return for further testing. There is a fine involved if you don’t report back. People respond to the fines.
- If smoke is opaque, how is that detected?
  - It is part of the PM measurement.
- Are there scrappage programs for vehicles not in compliance in other jurisdictions?
  - There are examples of scrappage programs. California has the most robust programs. In addition to scrappage, they might also waive costs or pay for part of any repairs.
- What emission control mechanisms are there for hydrocarbons for light-duty vehicles?
  - The catalytic converter is the main mechanism. There are trouble codes that can guide mechanics to where there might be issues elsewhere.
- Could stolen catalytic converters contribute to the data points with very high emissions?
  - Yes.

## 5 ROVER III Project Team

Project team co-chairs Rob Hoffman and Ann Baran provided an update on the team’s work and decision request. Rhonda Lee Curran, the third project team co-chair was available over Teams.

All data collection was completed fall 2022 and the report on the data analysis was approved by the project team in August 2023. The report and presentation to the board today will be posted on CASA’s website. The project team is working on their recommendations and has identified key theme areas but needs more time to reach consensus.

Potential recommendation theme areas include:

- Additional data collection (e.g., ROVER IV).
- Education and awareness on emission control technology and tampering impacts.
- Methods to prevent tampering (policy, regulatory, enforcement).
- Supporting federal initiatives to reduce tampering.
- Developing incentives for high emitters to perform routine maintenance on emission control systems.
- Communicate about transportation-related projects (e.g., webinar(s)).

These recommendations are expected to be refined before they are presented to the board for final approval. The board was asked to approve an amendment to the project charter to extend the project timeline until April 2024.

### Discussion

- There were no questions on the presentation.

*Decision: The board approved amending the ROVER III project charter to extend the project timeline until April 2024.*

## 6 Information Reports and Opportunity for Questions

### 6.1 Executive Director's Report

#### Discussion

- Where is the CAAQS project in the budget? Did they not spend money on the webinars?
  - This the core expenses budget and does not show project funding. The team spent money on the webinars but there was a separate grant for that which has been reported on.

### 6.2 Best Practices Guide for Dust Management in Alberta Project Team Update

#### Discussion

- What were the issues with the request for proposals (RFP)? Why were there no bids?
  - We reached out to several consultants, ones that we knew had viewed the RFP, and other relevant consultants identified by the project team. There were a range of responses when we discussed with them. The bulk of the work was over the summer which did not work for some, some did not have the capacity or the expertise. The team is adjusting the RFP to address these issues and other comments received. The team now has around a dozen consultants interested in bidding when the RFP is reissued.

### 6.3 Government of Alberta Update

#### Discussion:

- Has Alberta amended the PM<sub>2.5</sub> AQHI? If not, has that been discussed?
  - The Canadian Council of Ministers of the Environment (CCME) it is currently reviewing PM<sub>2.5</sub> CAAQS through several of its working groups. Alberta is participating in these conversations at the national level.
  - AQHI was developed by Health Canada and was modified by the province slightly. The elements on the index that are health-related have not been modified. EPA is currently evaluating the PM<sub>2.5</sub> override formula for AQHI reporting, which was originally developed by British Columbia and considering its use in Alberta. A decision has not yet been made on whether Alberta will adopt this adjustment, and if so when that update could be implemented.
- What is ZGM (in update #13)?
  - ZGM Modern Marketing Partners is the firm hired by the Alberta Airsheds Council to help deliver the innovative air education program.

### 6.4 CASA Sector Updates

To improve CASA's external communication actions and generate awareness of sector activities, staff have kicked off a new practice of collecting sector updates ahead of each board meeting to



share with members and partners. The sector updates document is envisioned to be a living document where recent information can be added between board meetings. The updates are on SharePoint already and can be updated there.

There were no comments or questions.

### **6.5 AWC Update for CASA Board**

There were no comments or questions on the AWC update.

No new or other business was identified when the agenda was approved.

Evaluation forms for the meeting will be sent out electronically; please fill them out as they help the executive committee and staff set up future meetings.

The next meeting will be held in Edmonton in the Rocky Mountain Meeting Room of the QEII Building on December 14.

Andre acknowledged the good work of EPA Partnerships Lead, Karen Ritchie, who worked as the liaison between CASA and GoA for the past three years. Her efforts facilitated a successful relationship between the GoA and the CASA's board, executive committee, project teams and other initiatives. The board recognized Karen with a round of applause. Her role will be filled by Curt Horning as she steps away from our file and turns her attention to agency work within EPA.

The meeting was adjourned at 2:58 p.m.

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The following action item(s) arose from the meeting:

**Action: Staff will take these comments on the current strategy and track them for the first draft of the updated strategy.**

**Action: Staff to post the minutes from this meeting to SharePoint to trial shared document editing.**

**Action: Board members will be asked to provide current bios to be posted on SharePoint.**

**Action: Staff will update the draft strategic plan for discussion at the December board meeting.**

**Action: Staff to circulate a call for members for a committee to plan for CASA's participation in the upcoming AWMA conference.**