MONITORING ODOURS, EMISSIONS AND AIR QUALITY TO ENSURE A HEALTHY ENVIRONMENT IN THE PEACE RIVER AREA.

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ANNUAL REPORT 2017-2018 Did you know PRAMP has air monitoring data from 2010 to today?

I FARNING AND **GROWING TOGETHER**

The Peace River Area Monitoring Program (PRAMP) Committee is a not-for-profit organization and a collaborative effort between the community, industry and government.

Co-Chairs' Message

Our focus on healthy air quality underpins all that we do. Air monitoring in the Peace River area started in 2010 and continues today as a collaborative effort among the community, industry and government.

Since 2016, PRAMP has achieved many milestones including producing two annual data technical reviews, a new website with near real-time data and the initiation of outreach in the Peace River area to share air quality information and understand air concerns of residents.

We are pleased that our analysis shows that emissions have declined between 2013 to 2018. However, we will continue to monitor data and look for sources when we find unexpected results. By working with industry and government, we can assess the data which leads to actions to improve air quality.

PRAMP is in a period of learning and growing. This growth is due to the 2010 to 2016 funding from our industry partners and our current funding from the Oil Sands Monitoring program through a contract with Alberta Environment and Parks (AEP).

AEP grant funding is also helping PRAMP engage the community on air quality and deliver education programs. While the dollars help to deliver our services, in-kind support in the form of participation in meetings, sharing resources, providing meeting space and educational tours is also critical to PRAMP's success.

We are fortunate to have a strong and committed Board of Directors with broad stakeholder representation and the deep technical expertise on our Technical Working Group. We extend our thanks to our funders, partners, directors, supporters and to our PRAMP staff who are key to our service delivery.

Our continued learning and growing in 2018 will be enhanced by the addition of a new portable air monitoring station for our network.

Continuing to engage with residents is a key priority for us and we look forward to hearing your questions and ideas to support healthy air quality in the Peace River area.

Doug Dallyn, David Hill and Garrett Tomlinson PRAMP Board Co-chairs

We all affect air quality. Reduce vehicle idling to reduce air pollution. Keep the air cleaner and healthier for people to breathe.



HIGHLIGHTS FROM 2017-18

CARS Clean Air Program

This year, PRAMP partnered with Inside Education PRAMP representatives visited Baytex operational to offer the Clean Air Responsible Schools: sites for a field tour this year. These types of CARS program to teach students at local schools on-the-ground learning opportunities help us about air quality, emissions and climate change. understand potential emission sources and how The program was delivered to students from operators are working to reduce emissions. Savanna School (Silver Valley), Worsley Central School, École Routhier School (Falher), Good PRAMP Monitoring Network Is Growing Shepherd School (Peace River), and Lloyd Garrison School (Berwyn). PRAMP has invested in its first portable

CARS provides students a greater understanding of the science behind their local Airshed, the issues around community emissions, and the clean air stewardship practices that can be implemented.

"Reaching school-aged children is an important opportunity for PRAMP to help our community understand the importance of healthy air and how PRAMP is monitoring and assessing local air quality everyday." Doug Dallyn, PRAMP co-chair

What we do

- Monitor hydrocarbons, sulphur gases and volatile organic compounds (VOCs)
- Support meteorological measurements
- Capture samples of air for detailed analysis
- Work together with the community, industry and government
- Provide information to reduce odours and emissions in the Peace River area
- Deliver education about air quality in the community

Working Together

monitoring station which will be ready by Fall 2018. The benefit of a portable station is its ability to move as monitoring needs are identified by the PRAMP Technical Working Group.

The portable station will have analyzers to measure the same parameters as current PRAMP stations (TRS, NMHC, THC), however it will have additional analyzers to provide information about the Air Quality Health Index (AQHI). The new parameters include Particulate Matter (PM), Ozone and Nitrogen Oxide.

We are very pleased to be able to bring AQHI information to the Peace River area.

The AQHI is a calculated index that will provide valuable information. It is an easy-to-understand scale used widely across Canada to help individuals understand health risks associated with air quality.

PRAMP STAFF: Michael Bisaga, Karla Reesor, Brenda Barber, Lily Lin



What We Are Learning

While it is important to understand changes in air quality at specific sites over the course of a year or two, PRAMP has also shown that regional and historical monitoring data provide valuable context for today's air quality measurements. On the right is a data presentation that PRAMP developed to help visualize the long-term change in hydrocarbon concentrations across the region. Over the past year of outreach efforts, this simple, yet effective data presentation has become the basis for telling key messages in the story of our region's air quality and the history of PRAMP.

PRAMP continues its efforts to correlate ambient air monitoring data and odour complaints information. As hydrocarbon concentrations have decreased over time, far fewer odour complaints are being recorded by regulatory agencies. Anecdotal evidence suggests that there are still odour issues in certain parts of the Airshed. PRAMP encourages area-residents to continue notifying regulatory agencies of any perceived odour issues. This is important for our ongoing analysis of current and historical complaint patterns and ambient hydrocarbon concentrations.

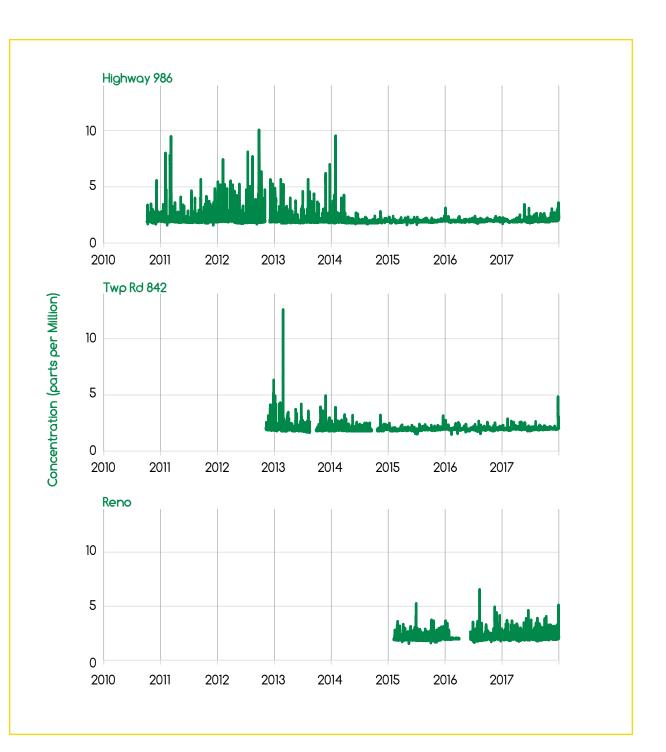
The canister program is a valuable source of data and key component of PRAMP's regional monitoring program. Unfortunately, the program had a number of failures over the last year; investigations generally all concluded that human-introduced error is the main cause for missed or spoiled sampling opportunities. PRAMP has taken steps to address this issue including performing several reviews of the canister sampling protocol, engaging in focused discussions with contractors, and having failsafe alarms installed. Despite these efforts, errors continue to occur. PRAMP is investigating options for a third-party review or audit of the canister sampling program, including both the physical hardware and associated protocol.

In 2017, PRAMP had its inaugural Technical Working Group meeting. This group focuses on the 'nuts and bolts' of delivering our monitoring programs including discussing data quality assurance, sampling equipment protocols, special monitoring studies, and network expansion plans. This group provides an opportunity for meaningful stakeholder dialogue for those interested in a fulsome technical discussion related to PRAMP's air quality monitoring programs.

This visualization (opposite page) presents methane data collected by PRAMP's monitoring stations. The charts are stacked and share the same time-scale so that comparisons across the different locations can be made. It is important to note that stations were phased in over time so data on each chart appears at the commencement of monitoring at that location. This visualization provides insight on how the concentration of hydrocarbons, in particular methane, has changed in our Airshed. A key message that begins to emerge from these data is

that both the frequency and magnitude of elevated hydrocarbon events have come down significantly since we started monitoring air quality in 2010. Both the place-based regulatory framework implemented by the AER and the process improvements and mitigation measures adopted by local industry have resulted in improvements in air quality. PRAMP's work on understanding regional air quality is ongoing and further investigation is needed to more fully understand air quality patterns, particularly in the Reno area.

HYDROCARBON (METHANE) CONCENTRATIONS Measured at 986, 842 and Reno Air Quality Monitoring Stations



HISTORY

2010

Originally formed as a subcommittee of the Three Creeks Working Group with two air monitoring stations

2013 A new air monitoring station added in the Reno area

2014

Alberta Energy Regulator provided recommendations from its proceeding on Odours and Emissions in the Peace **River** Area

2016

PRAMP became a registered not-for-profit organization continuing its work as a multi-stakeholder committee

2017

Accepted as a member of the Alberta Airsheds Council becoming Alberta's 10th Airshed organization

> PRAMP air monitoring stations operate 24 hours a day, 7 days a week.



Back row (left to right): Andy Trudeau, Reid Glenn, David Hill, Anthony Traverse Front row (left to right): Corinna Williams, Robyn Kutz, Krista Park, Shelly Shannon, Doug Dallyn

PRAMP BOARD MEMBERS

DOUG DALLYN (Co-chair) COMMUNITY

REID GLENN COMMUNITY

DAVID HILL (Co-Chair) INDUSTRY

GARRETT TOMLINSON (Co-chair)

(Secretary & Treasurer) INDUSTRY

KRISTA PARK GOVERNMENT

GOVERNMENT

THANK YOU PRAMP MEMBERS & SUPPORTERS

Community

Public members in the Three Creeks area Public member in the Reno area

Industry

Baytex Energy Obsidian Energy CNRL Tervita

Government

Alberta Energy Regulator Alberta Environment and Parks Alberta Health Services Alberta Health Lubichon Lake First Nation Region 6 Métis Nation MD of Smoky River Northern Sunrise County Town of Falher Woodland Cree First Nation



CORINNA WILLIAMS GOVERNMENT

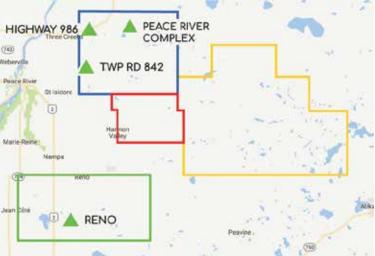
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ANDY TRUDEAU GOVERNMENT

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Visit our new website prampairshed.ca for live air quality data, resources and updates. Sign up for our newsletter!

To report an energy or environmental complaint, please call the Energy and Environmental 24-hour Response Line at 1-800-222-6514. Please visit the Alberta Energy Regulator website www.aer.ca for more information.

CONTACT US

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