



## GPAZ LOCATES ITS FIRST AIR MONITOR IN EAST REGINA

The Great Plains Air Zone has located its first air monitoring station in East Regina. As GPAZ is now in its second year of operation, the Ministry has loaned this Airpointer to the air zone to allow GPAZ to begin collecting air quality data in one of the locations the Science Committee has identified as a priority for air monitoring within the zone.



*Airpointer located in East Regina*

## THE GREAT PLAINS AIR ZONE HAS LOCATED ITS FIRST AIR QUALITY MONITOR IN EAST REGINA

The Great Plains Air Zone first air monitoring location has operated well through the winter with an average “uptime” of ~99% with the exception of the wind speed and direction readings. Wind speed and direction from the Regina Airport station are being used until the solution for the airpointer wind monitor are found.

The monitor is collecting real time air quality data that can be observed on our website at [www.gpaz.org](http://www.gpaz.org). The pollutants being monitored include sulphur dioxide, nitrogen oxides, ozone, fine particulate matter, wind direction, wind speed, air pressure, temperature, humidity and precipitation. The Air Quality Index (AQI) is also reported as a single numeric value from the above mentioned pollutants. For a better explanation of the AQI, please refer to our last newsletter. Monthly summaries of the data is also published on the website in an easy to read graphic format. Check it out!

### Great Plains Air Zone Meetings

The Board and GPAZ members met on May 10, 2016. The Science Committee met on April 6, 2016. Meeting highlights:

#### Science Committee Meeting

- Discussed quotes for air instrumentation and future monitoring sites.
- Reviewed and recommended service contract for new location in Belle Plaine.
- Discussion of data storage for GPAZ and other air zones.
- Updated action register

#### General meeting

- Motion was approved to contract SRC to supply and operate one air monitoring station immediately with a second to follow.
- Municipalities need to recognize their air pollution emissions and the benefits of becoming members of an Air Zone.
- Date set for next meeting (which will include the annual general meeting) – August 16<sup>th</sup>, 2016 (8am-11am) – Co-op Refinery Complex

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*“We all have a share in quality air”*

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## UPDATE TO MEETINGS

GPAZ has now placed its first air monitoring station in East Regina. We are now in the planning stage for the next site. The Science committee has looked at instrumentation costs and thought that having a more mobile system may better serve the GPAZ region in the future. A motion was passed approving the leasing a mobile trailer, with a service contract and data service. The Science Committee has recommended the new system be placed in Belle Plaine. The Saskatchewan Research Council had the most favourable bid and the installation and operation logistics are currently being worked out. Look for an update in our next newsletter or check our website at [www.gpaz.org](http://www.gpaz.org).

The Saskatchewan Ministry of Environment has agreed to locate the revitalized Saskatchewan Air Monitoring Lab (SAML) in Davidson as recommended by the Science committee. GPAZ will also be putting in a request to have the SAML also collect more information in Yorkton in 2016. GPAZ will continue to work to gather air quality information in other areas of the zone that have not had any previous air monitoring conducted. This will help our Science Committee prioritize representative air monitoring sites for GPAZ.

## AIR QUALITY NEWS

### **SOUTHERN CALIFORNIA'S REDUCTION IN SMOG LINKED TO MAJOR IMPROVEMENT IN CHILDREN'S HEALTH**

The study, published April 12 in the *Journal of the American Medical Association*, followed 4,602 children in three cohorts as they aged from 5 to 18. During 1993 to 2012, children and their parents from Long Beach, San Dimas, Upland, Riverside, Mira Loma, Lake Elsinore, Alpine and Santa Maria answered questionnaires about children's health. Air quality was continuously monitored in each community.

The study found that tiny particles called particulate matter 2.5 (PM 2.5) -- which can penetrate deep into lungs and cause serious health problems -- dropped by 47 percent from 1992 to 2011 in the study region. USC researchers were able to associate cleaner air with improved children's respiratory health. Kids with asthma were 32 percent less likely to suffer from bronchitic symptoms, and children without asthma experienced a 21 percent reduction in these respiratory problems.

Moreover, nitrogen dioxide, which can reduce resistance to respiratory infections, decreased by 49 percent in the same two decades. USC researchers linked the drop in nitrogen dioxide with a 21 percent decrease of bronchitic symptoms in children with asthma and a 16 percent decline of bronchitic symptoms in kids without asthma.

"This type of data is important for policymaking and for how clinicians would advise their patients," Berhane said.

"While the reduction in ambient air pollution has been observed during the past 20 years, it was most marked after 2000 and is very likely due to policies that were put in place," Berhane said. "Even though this is very encouraging, there is still room for improvement. We must recognize that in some cases, the ozone and particulate matter levels in Southern California are still in violation of federal standards."

**Journal Reference:** Kiros Berhane, Chih-Chieh Chang, Rob McConnell, W. James Gauderman, Edward Avol, Ed Rapaport, Robert Urman, Fred Lurmann, Frank Gilliland. **Association of Changes in Air Quality With Bronchitic Symptoms in Children in California, 1993-2012.** *JAMA*, 2016; 315 (14): 1491 DOI: [10.1001/jama.2016.3444](https://doi.org/10.1001/jama.2016.3444)

## Contact Us

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## Canadian Ambient Air Quality Standard for NO<sub>2</sub>

The national Air Quality Management System is revising the CAAQS for all the criteria air quality contaminants. The working group is looking at a range for 1-hour NO<sub>2</sub> CAAQS between 38ppb and 63 ppb to begin in 2020. Development of these ranges gave consideration to the health and environmental impacts of NO<sub>2</sub>, current ambient concentrations and projected levels in 2025, Canadian population exposure to ambient NO<sub>2</sub> based on the Population Improvement Approach (PIA), and standards/guidelines for NO<sub>2</sub> in place in Canada, other G7 countries, and developed by the World Health Organization.

The next meeting on the NO<sub>2</sub> CAAQS is on June 28<sup>th</sup> and updates will follow.

## \$200 Million Environmental Mega Project at Co-op Refinery Complex Enters Commissioning Phase

The Wastewater Improvement Project (WIP) will clean 100% of the CRC's wastewater on-site. This will significantly decrease Volatile Organic Compound (VOC) emissions from the Refinery's wastewater ponds, thus substantially reducing the nuisance odours that the Refinery's neighbours sometimes smell. "Being an industry leader in sustainability is a major part of our vision for the future of this refinery," said Gil Le Dressay, Vice-President of Refinery Operations. "By implementing the WIP and its leading edge technology we enhance our operations, reduce our environmental impact and benefit our community." <http://www.co-oprefinery.ca/wps/wcm/connect/43d54417-796c-4117-ba30-24570dac5dob/WIP-news-release.pdf?MOD=AJPERES>

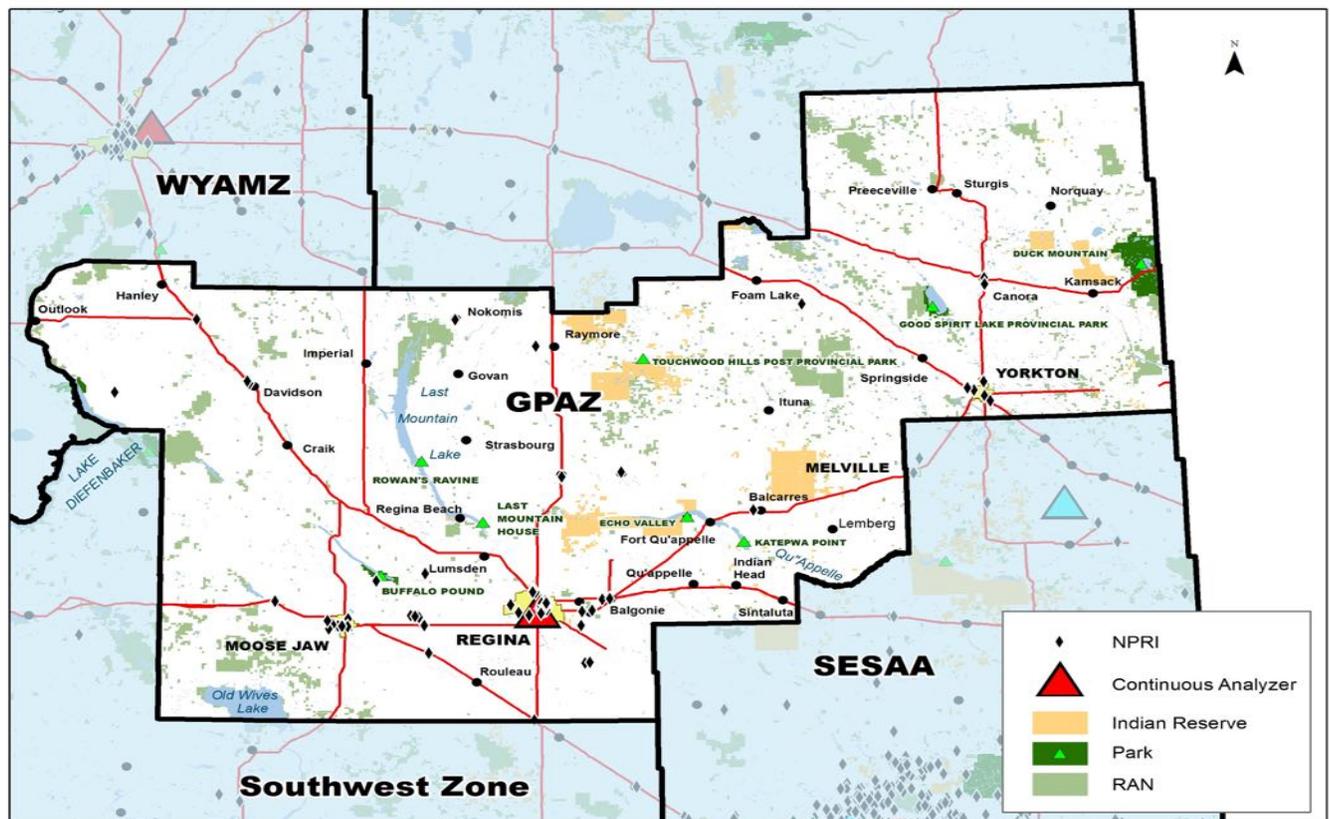
## Other Air Quality Stories of Interest for the first half of 2016

**Study: How EU air quality rules are helping to save 80,000 lives a year.** The study led by a team at the University of Leeds and published this week in the journal *Environmental Research Letters*, marks the first attempt to quantify the effectiveness of EU air quality policies in terms of lives saved. It concludes that between 1970 and 2010 Europe-wide air quality rules have helped to cut fine particles in the atmosphere by 35 per cent, preventing around 80,000 early deaths a year. <http://www.businessgreen.com/bg/news/2448974/study-how-eu-air-quality-rules-are-helping-to-save-80-000-lives-a-year>

## **Southern California air quality board is sued over adoption of industry-friendly smog rules**

(<file:///H:/air%20regulation-permitting/Southern%20California%20air%20quality%20board%20is%20sued%20over%20adoption%20of%20industry-friendly%20smog%20rules%20-%20LA%20Times.html>)

**Yale University Global Environmental Performance Indicators - 1. More deaths globally occur due to poor air quality than water.** In 2013, unsafe water was responsible for 2 percent of global deaths (~1.24 million), while poor air quality was responsible for 10 percent of all global deaths (~5.52 million). <http://epi.yale.edu/chapter/air-quality>



## NEXT MEETING OF THE GREAT PLAINS AIR ZONE

A general meeting will take place on August 16<sup>th</sup>, 2016 at the Co-op Refinery Business Office (580 Park Street). The Science Committee will be meeting at the Ministry of the Environment office (3211 Albert Street) on June 7<sup>th</sup>, 2016. Do you have information to share? If you or your organization has an article or information pertaining to air quality, improvements to air quality control equipment, or upgrades to processes that improve air quality, please forward it so we can include it in our next newsletter.

## GREAT PLAINS AIR ZONE MEMBERS

THE CANADIAN SALT COMPANY LIMITED (K + S Windsor salt)

CONSUMERS' CO-OPERATIVE REFINERIES LIMITED,

EVRAZ INC. NA CANADA

GENERAL SCRAP PARTNERSHIP

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