

ON THE AIR

Winter
2018-19

A Newsletter about
Clean Air. Provided
by Spokane Regional
Clean Air Agency.

A Golden Milestone



We go back a few decades. And now at 50, we celebrate our “golden” anniversary by remembering the people, events and milestones that got us here.

In 1968, before the U.S. Environmental Protection Agency was created, the Agency’s first Executive Director was hired in response to studies indicting we had a real air pollution problem. On January 1, 1969, the Spokane County Air Pollution Control Authority was fully activated to clean up the dirty air plaguing the area. In 1970, an air quality specialist was hired, followed by a federal trainee assigned to the agency, and a chemist-inspector.

Today we are known as Spokane Regional Clean Air Agency. We have a staff of 20 dedicated employees working in areas such as engineering and permitting, compliance and enforcement, education and outreach, air quality monitoring and forecasting, and administration.

We are launching a three-part series, starting with this issue, to showcase some of the significant events and programs over the last five decades that helped address air pollution issues here and across our nation. *The first installment is inside.*

A message from Executive Director Julie Oliver



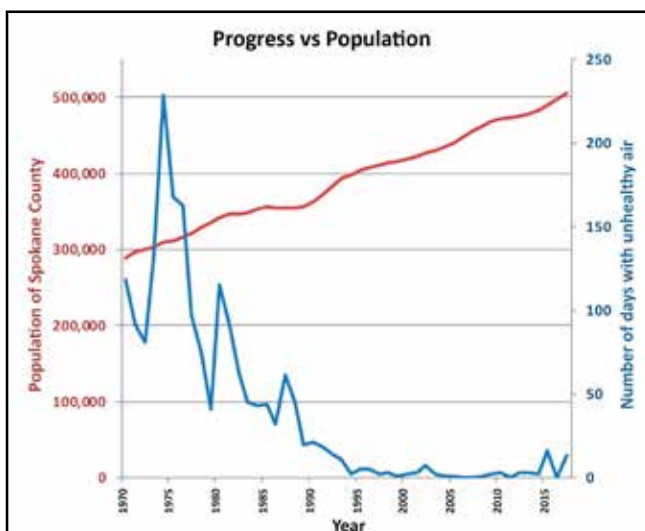
In celebration of our 50th year, we’ve taken a look back over the last half century and want to share with you just how far we’ve come in cleaning up the air.

50 years of clean air progress

The chart below illustrates Spokane County’s air quality success story. As population increased over the last half century, the number of days during which the population breathed unhealthy air declined.

It's important to note that over these five decades, the number and location of air monitoring sites changed, as well as the air monitoring technology.

Additionally, health-based air quality standards for various pollutants were revised several times during this 50-year period.



We no longer see soot covered buildings or billowing industrial smoke stacks. These are distant memories thanks in part to the work of industry installing more sophisticated air pollution control technologies, and the companies and individuals who invented such technologies.

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50 years of clean air progress: 1969 - 2019, Part 1 of 3

Early studies of air pollution in Spokane

One of the earliest air pollution studies in Spokane was conducted in 1949 to determine if air contaminants were affecting Ponderosa Pine trees. Researchers at Washington State University (WSU) concluded that the major factor responsible for Ponderosa Pine Blight was fluorine in the form of atmospheric fluorides, likely emitted from industrial facilities.

Two years later, another WSU study classified air pollution by types into smoke, dust, odors, gases and fumes, and noted air pollution effects of reduction of sunlight, dirt and dust, and damage to vegetation.

Additional studies were conducted in 1955 and 1956, concluding that Spokane indeed had an air pollution problem. Reports stressed the need for an accurate estimate of current

and potential air pollutants to provide a basis for local government to determine what appropriate actions would be needed. Recommendations underscored the important role of the community in formulating and supporting an air pollution control program. Community stakeholders vital to the success of such a program included citizens, civic groups, officials, industry, business, and trade associations.

The 1960s - Federal and State Clean Air Acts pass

Congress passed and President Johnson signed the federal Clean Air Act into existence in 1963, out of an urgent need to protect the nation's air from further excessive pollution.

Four years later, the Clean Air Act of Washington authorized the formation of local air pollution control authorities in areas across the state.

On January 1, 1969, the Spokane County Air Pollution Control Authority was fully activated. Nearly 40 years later, the agency was renamed to Spokane Regional Clean Air Agency.

The Agency's first Director, Fred Shiosaki, described Spokane's air pollution as being "a disagreeable, dark haze covering our city."

As air pollution became more evident and palpable, the agency was inundated with calls from citizens expressing concern about smoke, odors, and health impacts from the deteriorating air quality. Residents were also concerned about the soiling impact on buildings. Many buildings were discolored from pollution, and fallout settled on laundry, vehicles, gardens, and other surfaces.

The 1970s - The birth of the EPA; Spokane hosts Worlds Fair

As a result of heightened public concerns about deteriorating city air, natural areas littered with debris, and contaminated urban water supplies, President Richard Nixon sent Congress a plan to consolidate many environmental responsibilities of the federal government under one agency. The agency would respond to environmental problems in a manner beyond the previous capability of government pollution control programs. On December 2, 1970, the U.S. Environmental Protection Agency (EPA) was established.

The nation's first clean air legislation dates back to the 1950s, but the landmark Clean Air Act (CAA) of 1970 moved the environmental protection concerns of the country into a prominent position on the national agenda.

According to the Howard H. Baker Center for Public Policy, "The CAA ... demonstrated what can be achieved when compromise, concessions and consensus dictate; when different viewpoints are valued and respected; when parties and politics are put aside and decisions are made based on what is in the best interest of the country as a whole."

Four years later, Spokane hosted the first environmentally-themed World's Fair, themed "*Celebrating Tomorrow's Fresh New Environment... Expo '74.*" Tomorrow's fresh new environment was on its way, but it would take nearly three decades for air quality in Spokane to meet national, health-based standards.

Air quality monitoring and emissions control technologies were undergoing tremendous advances during this

time. Capturing pollutants in "fall out buckets" and on "sticky tape jars" was replaced with advanced and more accurate filter-based equipment.

Initial efforts to clean up Spokane's air focused on reducing garbage burning by residents and cleaning up the obvious industrial and commercial operations. Prioritizing facilities for clean-up was done using visual observations of smokestacks. Grain handling operations, flour mills, asphalt and concrete plants, and other operations were beginning to install baghouses to control the release of particles into the air. ■

This 3-part series continues next quarter in Part 2: A Look Back: Air quality challenges and successes during the 1980s and 1990s.

THEN & NOW



To find out what was in the air and where it was coming from, the agency initially relied on “low-tech” methods, such as chemistry and visual observations. In the early years, sticky tape jars were used to capture pollution. Empty peanut butter jars covered with sticky tape were placed on property downwind from industrial polluters to see if emissions were impacting neighboring properties. Today, sophisticated monitoring equipment provides real-time data of pollution levels.



Belching smokestacks were common in the early years of air pollution control. Buildings downtown were often discolored from pollution. Industrial and commercial sources of air pollution were a key focus for clean-up. This was a large undertaking for most industries, as air pollution control equipment had to be designed for each process, ordered, shipped, and installed.

Over the years, new equipment and improved operations have dramatically reduced air pollution from the commercial sector, which now accounts for less than 20% of air pollution.



The Clean Air Act of 1970 required the phase-out of leaded gasoline. Blood-lead levels in humans dropped 50% by 1980. Between 1980 and 1999, lead levels in the air decreased by 94 percent. Removing lead from gasoline is considered to be one of the most important and successful environmental health initiatives of the last century.

The EPA was given broad responsibility for regulating motor vehicle pollution. New cars had to meet EPA emission standards for hydrocarbons, carbon monoxide, and nitrogen oxide. The law also required a 90 percent reduction in emissions from new automobiles within five years. The advent of the catalytic converter in 1975 would be the key to making this happen.

In the mid 1980s, the state’s vehicle emissions testing program was initiated to reduce carbon monoxide pollution. The emissions testing program requirement is currently set to expire at the end of 2020.

Message...*continued from cover*

Technology has also made our cars much cleaner and our wood stoves less polluting and more efficient.

Most of our well-traveled dirt roads have been paved and residential outdoor burning as a disposal method has been phased-out in many areas.

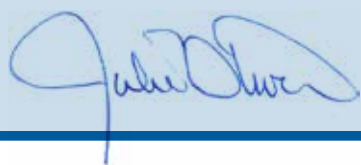
Businesses are supporting commute trip reduction by encouraging employees to use alternatives to driving alone to work.

The community continues to work together to address congestion by supporting transit and bicycle- and pedestrian-friendly designs.

But our work isn't done. As the region grows, so do the emissions in our air shed. Efforts to improve air quality and to stay in compliance with health-based standards must continue.

We have new challenges as well. Recent summers have been shrouded in smoke from wildfires burning near and far. Smoke affects us all, especially our most vulnerable residents. In addition to the health concerns from breathing smoke-filled air, there are economic impacts in our communities as well. Outdoor events and recreational opportunities that local residents enjoy and that attract visitors to our area are at risk of low attendance and cancellations.

We do know this. Clean air is a precious resource and we'll continue our work with residents, businesses and partner agencies. Striving for good air quality now and into the future is well worth the effort.



Clean Air Poster Contest

ALL Participants will receive a FREE slice of Pizza Pipeline pizza!

Calling all Spokane County artists in grades K-6! Spokane Clean Air is excited to announce our third annual Clean Air Poster Contest and our 50th anniversary as an agency. This year, students are encouraged to create an original poster using the theme: 50 Years of Clean Air Progress.

Back again this year, all students that submit a poster will receive a coupon for a FREE slice of pizza from Pizza Pipeline. Additional prizes will also be awarded to finalists.



Posters will be displayed throughout Spokane County during Clean Air Month in May.

Poster Contest Rules

Posters must be letter-size (8 1/2 x 11). You may use the medium of your choice (e.g. crayon, marker, colored pencil, paint, etc.). The student's name must not appear on the front of the poster.

Primary consideration for judging are, in priority:

- Use of the theme: *50 Years of Clean Air Progress*
- Originality
- Artistic ability

Finalists will be selected for display throughout Spokane County during the month of May. Grade level finalists will be chosen for special recognition and prizes.

Posters must be received by 4 p.m. on Friday, April 12, 2019, at Spokane Regional Clean Air Agency, 3104 E. Augusta Ave, Spokane, WA 99207.

Entrants must be in grades K-6 and either reside or attend school in Spokane County. Complete a signed release form and attach it to the back of the completed poster with small pieces of tape. Form are available at www.SpokaneCleanAir.org.

On The Air is published by Spokane Regional Clean Air Agency. Send article ideas, comments to LWoodard@SpokaneCleanAir.org.



3104 E. Augusta, Spokane, WA
Phone: (509) 477-4727
www.SpokaneCleanAir.org
working with you for clean air