

# A Breath of Fresh Air

## Air Quality is Important for a Healthy Economy

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March 1, 2012

Some days, the Northern Utah air is so thick with haze that it's impossible to see the mountains. From the benches, the downtown skyline is obscured in layers of smog. It's unhealthy. It's unsightly. And it's a huge liability for economic development efforts in the state.

### Natural Challenges

Geography, in Northern Utah, is a huge blessing and something of a curse.

"Our natural beauty in Utah—which provides for that sought-after healthy lifestyle—is an economic advantage for us, and one that other metropolitan areas can't match," says Marty Carpenter, spokesperson for the Salt Lake Chamber.

But the state's high-elevation mountain ranges and low-lying valleys create an inescapable problem: when the weather conditions are right, valley air becomes trapped while pollutants build up to higher and higher concentrations.

On particularly bad winter days, the air quality in the Wasatch region is the worst in the country, according to tracking by the Environmental Protection Agency (EPA). On the most severe air quality days, pollution levels spike to more than double the EPA recommendations.

It doesn't help that there are five oil refineries along the northern Salt Lake Valley and Kennecott Utah Copper on the southwestern edge—not to mention the hundreds of thousands of cars on the road each day.

The Utah Division of Air Quality tracks 100 companies and organizations as the largest pollution emitters, says Bryce Bird, director of the division. These sources include the refineries, power plants, sand and gravel operations, and even the state's many universities, due to the number and size of buildings on the campuses.

And then there are "area sources," the general impacts of having nearly 2 million people living along the Wasatch Front and the energy consumed powering their homes and offices.

In the summertime, the major pollution concern is ground-level ozone. In the winter, the biggest problem is fine particulate matter. The EPA tracks two sizes of particulates: PM10, which is about one-seventh the diameter of a human hair, and PM2.5, which is one-thirtieth the diameter of hair.

On an average winter day, says Bird, motor vehicles are responsible for more than 50 percent of the PM2.5 in the air, while industrial emitters and area sources make up the rest.

### Polluting the Economy

For the Salt Lake Chamber, poor air quality presents as much an economic development threat as a health threat.

"It's not the tree-hugger thing that you might be picturing," says Carpenter. "It's important to our economic development that we maintain and improve our air quality. It's important for job creation, for business growth, and it impacts every business in the state."

One of the biggest threats is the possibility of additional federal regulation.

Northern Utah's seasonal pollution spikes have already drawn the attention of the EPA. A broad swath of the region has been designated as a "non-attainment" area for PM2.5, including all of Davis and Salt Lake counties, and portions of Tooele, Box Elder, Weber and Cache counties. Salt Lake and Utah counties are non-attainment areas for PM10 pollution.

While the state is working to formulate a plan to deal with its air quality, "The EPA has two hammers that are waiting to fall," says Bird. One is automatic sanctions that would reduce or eliminate federal highway funding for capacity-expanding projects. The other is an EPA-imposed plan to bring the area into compliance—in other words, additional regulatory oversight and burdens.

Both of these possibilities concern the Salt Lake Chamber.

“Highway funding has been such a vital component to our economic development effort over the last seven or eight years,” notes Carpenter. Projects like the Mountain View Corridor and the extension of the Legacy Highway are vital for the surrounding communities. Plus, these projects provide much-needed construction jobs.

Utah’s air quality presents another economic development concern—a reduced ability to recruit businesses to Utah. “The EDCUtah really gets nervous about bringing people to Utah in January and February for fear there will be poor air quality issues,” says Carpenter. “If they see a valley filled with haze and pollution, it’s not as attractive to them.”

Other economic costs of poor air quality include reduced worker productivity and increased healthcare costs as a result of illnesses caused and exacerbated by the pollution.

#### Corporate Responsibility

Because of the potential economic impacts, the Salt Lake Chamber has convened a task force to address Utah’s poor air quality. Several local businesses have gotten involved, including Kennecott Utah Copper—one of the Salt Lake Valley’s major polluters.

Kennecott’s mining operations include a power plant, big haul trucks and smelting operations. The haul trucks move more than 500,000 tons of material every day, kicking up dust and fine particulate matter. Kennecott is responsible for 16 percent of the PM10 pollution in the air, according to 2008 data from the Utah Division of Air Quality.

The mine has already taken several steps to reduce its emissions. An idle reduction program has saved more than 1.8 million gallons of fuel and prevented more than 18,000 tons of greenhouse gases from being released, says Kyle Bennett, spokesperson for Kennecott Utah Copper.

The company has also begun investing in compressed natural gas (CNG) vehicles and its own fueling station. Furthermore, Kennecott constructed a combined heat and power system at its Magna refinery; the system is more than 80 percent energy efficient when compared with separate heat and power systems, says Bennett.

“We’re looking at a lot of ways to be responsible, to be really focused on sustainable development,” he says.

Kennecott is in the midst of obtaining the necessary permits for its Cornerstone project—a plan to extend the life of the mine to at least 2028. The plan would significantly expand the mine and increase the amount of material moved every day.

Although the mine would be expanded, Bennett says the mine’s overall emissions would be somewhat reduced. One reason for that is a planned upgrade that would convert the mine’s onsite power plant to a combined-cycle natural gas plan. “That would allow us to double the amount of power by reducing emissions at the plant by half,” he says.

Other planned improvements include enhanced dust control and particulate monitoring systems, and larger haul trucks that will allow more material to be moved per trip.

#### Better for Business

Many local companies are trying to reduce their impact on air quality. Hale Center Theater converted its vehicle fleet to CNG vehicles and provides free fuel to employees who purchase personal CNG vehicles. Waste Management is in the process of converting its fleet of garbage trucks to CNG trucks. The company expects to reap \$16,000 per truck per year in fuel savings.

Companies can also get their employees involved through the Clear the Air Challenge, an annual competition that encourages individuals to reduce the number of miles they drive. Last year, Overstock.com was the top company with its employees saving 166,000 miles for an estimated reduction of 275,000 pounds of emissions.

Overstock.com encourages wise travel all year long. “All our employees are here in Utah. We want to be a good corporate citizen and make it a great place to live,” says Jonathan Johnson, president of Overstock.com.

The company encourages its 1,400 employees to carpool, take public transportation, walk or bike to work. Those who carpool or walk/bike receive a monthly stipend. Those who take public transportations are given free passes. Nearly 300 Overstock.com employees take advantage of either the stipend or the free transit passes.

The company also buys carbon credits to offset the carbon foot-print created by its warehouse and shipping operations.

Johnson chairs the Salt Lake Chamber clean air task force, which is working to get the wider business community engaged in the issue of clean air. Getting involved “is paramount,” says Johnson. “It needs to be every company.”

#### Moving Forward

Air quality is not a new issue for Utah—and it’s not a new issue for the chamber. In the 1920s, coal-fired power plants and coal-burning stoves blackened the air. Eventually, coal was banned in favor of cleaner fuels. “At one point, in 1942, the chamber paid for an airplane to fly around the valley and look for people who were illegally burning coal,” says Carpenter.

The state’s air quality has improved over the years, especially since the early 1970s, when the federal Clean Air Act went into effect.

“We’ve seen constant improvement over time; even though industry has grown and the population has grown, we have better air quality than we did 20 years ago,” says Bird.

Although the improvement is good news, it does present a difficulty going forward. As Bird explains, all the easy fixes have been done. To meet EPA guidelines is going to require real effort and sacrifice—both from businesses and individuals.

“All the low-hanging fruit has been picked,” he says.

The Division of Air Quality must present a plan for addressing PM2.5 pollution to the EPA by 2014. In the meantime, the Salt Lake Chamber has made air quality a top priority for this year. It is launching a “Clean Air Champions” program to recognize companies that are making a difference.

Gov. Gary R. Herbert has also launched a statewide initiative that encourages individuals, businesses and local governments to set air quality goals. The Utah Clean Air Partnership (U-CAIR) is entirely voluntary; the program offers tips and suggestions for families and companies to make realistic changes and set achievable goals.

Nationally, many communities with air quality problems have implemented regulations that limit the amount of time freight trucks and passenger vehicles can idle, especially in front of schools, in drive-through lanes or even at railroad crossings.

But Utah government and business leaders are hoping that Utahns will step up to the plate and voluntarily tackle our air quality challenges—because if we can't meet this problem with our legendary pioneering spirit and entrepreneurial zeal, federally imposed regulations will make economic expansion much harder.

"Everybody needs to come to the table on improving air quality and show that they're willing to make some changes—maybe it's their daily lives, maybe it's some minor changes to the way they run their business. But it's got to be a joint effort to create positive change in the valley," says Bennett.

#### Take a Deep Breath

On too many days it's easy to see the smog in our air—the unpleasant brownish haze that obscures the mountains and the downtown skyline—but it's not so easy to see what it's doing to our bodies.

Utah Physicians for a Healthy Environment, a group of doctors and other health professionals who are concerned about the health risks presented by the local air quality, has combed the research and come to some startling conclusions: up to 2,000 Utahns die each year as a direct result of air pollution and, in general, it reduces our lifespan by as much as two years.

"For people with chronic illness, it increases the risk of problems, especially if it's respiratory or a heart ailment—cardiovascular or pulmonary problems," says Dr. Richard Kanner, professor of internal medicine at the University of Utah School of Medicine and board member of UPHE. "They're more apt to say they have asthma symptoms; they're more apt to use more medications; they may have to go to the emergency room. They're also at a greater risk of dying, if their disease is advanced."

It's hard to say how the air pollution affects healthy adults, says Dr. Kanner. But he notes that fine particulate pollution builds up in the respiratory system. "They may very well be a Trojan Horse carrying heavy metals from the soil here—polyaromatic hydrocarbons that can be toxic," he says.

High pollution levels are directly related to an increased number of hospital visits, says Dr. Kanner, as well as to the number of heart attacks, strokes, asthma attacks, and cases of pneumonia and bronchitis. "There is usually a lag period of a few days between the peak of the inversion and the air pollution and the onset of people coming to the ER," he notes.

UPHE points to research from the Utah Department of Health, which found that more than 16 percent of children in North Salt Lake and Woods Cross have asthma—while the normal prevalence is 5 percent. The affected area is close to both I-15 and oil refineries.

"It hits people with smaller airways harder," says Dr. Kanner. "Children have smaller airways...more of the material is going to be caught in the airways and stay in the body."

#### What You Can Do

Carpool, bike or use mass transit

On bad air days, postpone errands that can wait

Combine your errands into one trip

Keep your vehicle well maintained

Don't "warm" your vehicle by letting it idle  
Avoid drive-through lanes  
Don't idle outside schools or airports  
Accelerate gradually  
Obey the speed limit  
Purchase Energy Star appliances and lighting  
Use a snow shovel and a push mower  
Rake leaves instead of using a blower  
Use a non-charcoal barbecue  
Maintain your air conditioner and furnace

#### What Your Business Can Do

Create flexible schedules to reduce rush-hour traffic  
When feasible, encourage telecommuting  
Implement a rideshare program for your employees  
Keep your fleet vehicles well maintained  
Purchase fuel-efficient or alternative-fuel vehicles  
Keep all solvents and paints in  
air-tight containers  
Adopt pollution prevention methods—they will not only prevent air pollution but will also result in savings for  
your company

\* Adapted from the Utah Division of Air Quality