

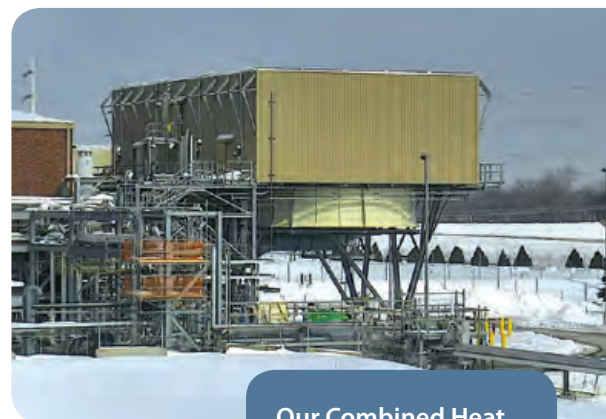
2019 Community Update

One of America's best oil refineries

Flint Hills Resources Pine Bend is one of the nation's cleanest and most efficient oil refineries – and it's about to get even better. In 2019, Pine Bend is unveiling major innovations that will help the refinery continue to lower emissions while producing more of the fuel and other products people need and use every day.

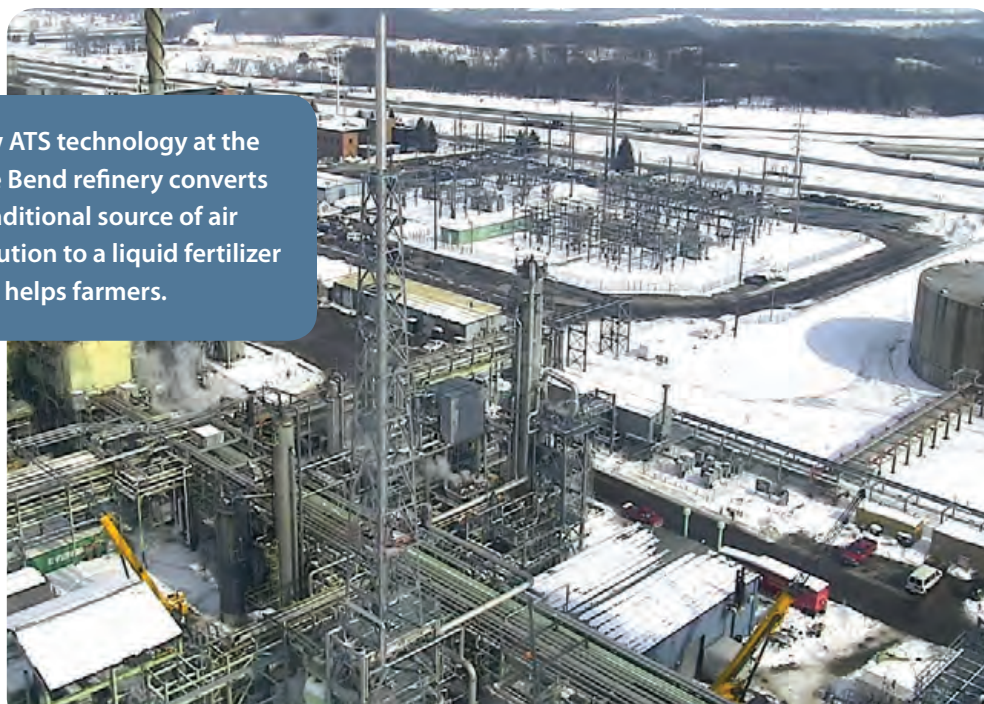
Its new ammonium thiosulfate (ATS) technology will help the refinery produce ultra-low sulfur, more environmentally-friendly gasoline, while in the process converting a traditional source of air pollution to a liquid fertilizer that helps farmers. This \$125 million project is the largest application of ATS technology in the world.

Pine Bend's new Combined Heat and Power (CHP) system simultaneously produces useful steam and electricity from a single heat source – natural gas. The CHP will be among Minnesota's most efficient sources of energy generation, providing about 50 megawatts of electricity, roughly 40 percent of the energy required to power the entire refinery. The CHP will reduce average grid emissions and put Pine Bend squarely in the top quartile of the most efficient large refineries in the United States.



Our Combined Heat and Power (CHP) system will provide approximately 50 megawatts of electricity.

New ATS technology at the Pine Bend refinery converts a traditional source of air pollution to a liquid fertilizer that helps farmers.



Various other projects recently implemented or coming online this year include nearly \$500 million in investments that help further improve the refinery's overall performance, continuing a 20-year trend of lower emissions, a relentless focus on safety, and a constant desire to transform in order to remain competitive and viable well into the future.

Community Partnerships in Action



Celebrating 20 years of bringing science to life

BY THE NUMBERS

200,000
STUDENTS



265
SCHOOLS



56
COUNTIES

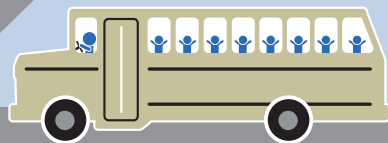


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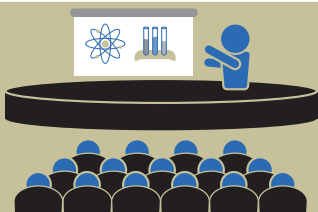
SLEEPOVERS
at the museum



35,847 BUS miles traveled



1,402 SCHOOL assemblies



20 years of bringing science to life for kids

This year marks the 20th anniversary of Flint Hills Resources' partnership with the Science Museum of Minnesota to provide unique science experiences for Minnesota students. More than 200,000 students from 265 schools and 56 counties have benefited from these experiences, which help foster and spark interest in science, technology and engineering at a young age.

- Experience Science is a hands-on program for elementary students in Dakota County, which includes field trips to the museum and school assemblies which complement STEM curriculum in the classroom.
- Science Matters brings students from across the state to the Science Museum for sleepovers at the museum. Teachers and students regularly say this experience is a highlight of the school year!



Fourth grader Jacques Kemp and Science Museum of Minnesota instructor Gretchen Henke test heat-resistant gloves during a demonstration on the engineering design process at Pine Bend Elementary in Inver Grove Heights.

Supporting students' futures with Discovery Scholarships

In 2018, 26 students from high schools in Dakota and Washington counties were awarded \$2,500 scholarships for their college education. In June, we will announce this year's scholarship winners. Since 1991, Flint Hills' Discovery Scholarships have awarded nearly \$1 million to hundreds of Minnesota college-bound students to help them pursue education and careers in STEM fields and beyond. The scholarships are awarded in recognition of students' exceptional academic performance, leadership skills and entrepreneurial vision.



2018 Discovery Scholarship recipients.



Firefighters train at Pine Bend

Flint Hills Biofuels and Ingredients division, which operates biofuel production facilities mainly in the Midwest, organized a training for seven Iowa fire departments to practice

fighting complex fires at the Pine Bend refinery's fire training grounds. Firefighters practiced extinguishing live petroleum fires, developed defensive cooling expertise and learned advanced teamwork techniques.

As part of Flint Hills' dedication to safety, the company provides free training to public safety responders who make our communities a safer place.

Flint Hills contributions help Ducks Unlimited conserve 200,000 acres in Minnesota

Flint Hills Resources has been supporting the work of Ducks Unlimited since 1985. The nonprofit works in all 50 states to preserve and protect natural habitats for waterfowl, wildlife and people.

Recently, Flint Hills Resources eclipsed \$1 million in total giving to Ducks Unlimited, and this funding has allowed the organization to conserve more than 200,000 acres across Minnesota. Flint Hills is among Ducks Unlimited's longest-standing corporate supporters.



Flint Hills Family Festival: More accessible than ever

In 2018, the Flint Hills International Children's Festival became the Flint Hills Family Festival, reflecting the broader audiences and experiences the beloved annual festival brings to Saint Paul. Maintaining the event's international focus and Flint Hills' longstanding partnership with the Ordway Center for Performing Arts, the Family Festival will continue in 2019 with even more activities and programming for family members of all ages.



Mark your calendars!

2019 Flint Hills Family Festival

May 31-June 1

Ordway.org/Festival

Community Partnerships in Action



Society of Women Engineers annual conference in Minnesota

Flint Hills Resources sponsored the 2018 Society of Women Engineers (WE18) annual conference in October 2018, which included hosting a pre-conference reception and panel discussion with several female business leaders at subsidiaries of Koch Industries, Flint Hills Resources' parent company. As the world's largest conference for women engineers, WE18 brought together more than 11,000 attendees for important conversations about innovation, leadership, and encouraging women to pursue careers in science and engineering fields. To hear from our panelists, check out a video of event highlights at PineBendRefinery.com/SWEvideo.

Special thanks to our panel: Jennifer Hellman, Goff Public (moderator); Sheryl Corrigan, Director of Environmental, Health and Safety, Koch Industries; Nadine Dytke-Madsen, Global Product Manager, Molex; Deb Preschler, Operations Innovation Director, Flint Hills Resources; Carrie Shapiro, Vice President of Dixie Manufacturing, Georgia Pacific; Dawn Wurst, Vice President of Process and Asset Safety, Georgia Pacific



Zoo animals: A STEM gateway for students

As the title sponsor of the ZOOMS STEM Design Challenge at the Minnesota Zoo, Flint Hills Resources is supporting the next generation of problem solvers. The ZOOMS STEM Design Challenge links children's love of animals with their innate curiosity about how things work in the world around them and challenges them to develop solutions to real zoo-based challenges. Each year, the challenge culminates with an exhibit at the zoo in the spring where participants share their imaginative animal enrichment or renovated animal exhibit designs.



These third graders from Cedar Park STEM Elementary School in Apple Valley work together to develop a model for a new enrichment for the Minnesota Zoo's moose exhibit.



2018 Learning Buddies volunteers

Enriching lives through intergenerational learning

Flint Hills Resources is proud to continue its 22-year partnership with DARTS – a West St. Paul-based nonprofit organization that works to create connections that enrich aging – to fund the Learning Buddies program in Dakota, Scott and Ramsey counties. The Learning Buddies program connects 130 older adult volunteers with kids in 212 Minnesota classrooms for weekly, one-on-one learning sessions. Studies show that intergenerational learning is beneficial and fulfilling for both the students and volunteers. In 2018, Learning Buddies also expanded its Pen Pal program to five area schools.

"The joy of working with young children and watching them grow in skills and confidence, the joy of hearing the laughter of young people, the grasp of a child's hand – these are priceless opportunities that I look forward to each week."

- Nancy Feltes,
Learning Buddies
volunteer for five years



Sign up for community alerts from Dakota County

Dakota County maintains a community notification system that provides emergency alerts and other important community news. The system provides time-sensitive messages using your preferred communication method, including email, text message, or home and mobile phone numbers. Flint Hills Resources encourages its neighbors to sign up for these community alerts at mn-dcc.org/community-notification.

New terminal facilities

Wescott propane terminal

Flint Hills Resources recently purchased a propane storage facility near Cliff Road and Highway 3 in Inver Grove Heights, just a few miles from the refinery. Flint Hills had leased the facility from Xcel Energy for many years so it can better meet seasonal demand for propane, especially during the winter months. Flint Hills is also considering a new propane pipeline to connect the Wescott facility to the refinery.

The small, four-inch pipeline would be located primarily on refinery property and existing public right-of-way.

Flint Hills Resources also recently acquired three petroleum storage tanks off of 117th Street in Inver Grove Heights from Xcel Energy. The tanks will help Pine Bend manage its product inventories, especially during maintenance periods.



Asphalt terminal at UMore Park

Late last summer, Flint Hills Resources began operating a polymer-modified asphalt facility at UMore Park in Rosemount. The facility produces high-quality paving products that suit Minnesota's highly sophisticated paving specifications. Flint Hills Resources' newest terminal in Rosemount is strategically placed to supply the southeast metro area and meet the key needs of customers.

Environment, health & safety

Recycling gases to minimize flaring

It can be eye-catching when you see flames coming out of the flare stacks at Pine Bend – but in fact, flares are sometimes necessary, and a normal and essential component of safety at the refinery as they help eliminate any excess product that could build up in pipes and towers. Flaring is also a pollution control device, ensuring that these gases don't vent directly into the atmosphere.

Pine Bend has invested in flare gas recovery, a state-of-the-art technology that helps reduce flaring by recovering excess gases and recycling them back into the facility. Pine Bend has decreased its annual flaring from more than 120 hours in 2001 to an average of less than 20 hours since 2010.



New program: Fixing exhaust systems in older vehicles

Flint Hills Resources is thrilled to partner with Minnesota nonprofit Environmental Initiative on a new program to reduce emissions from older cars and light-duty trucks. Through this program, Environmental Initiative works with two auto care garages to fix exhaust systems in older cars for lower-income residents in the Twin Cities. This project – which will be offered at low or no cost to vehicle owners – will clean up some of the most polluting cars on the road while reducing barriers to transportation for those most impacted by them. Flint Hills Resources has partnered with Environmental Initiative on clean air programs since 2005.



Pine Bend Bluffs

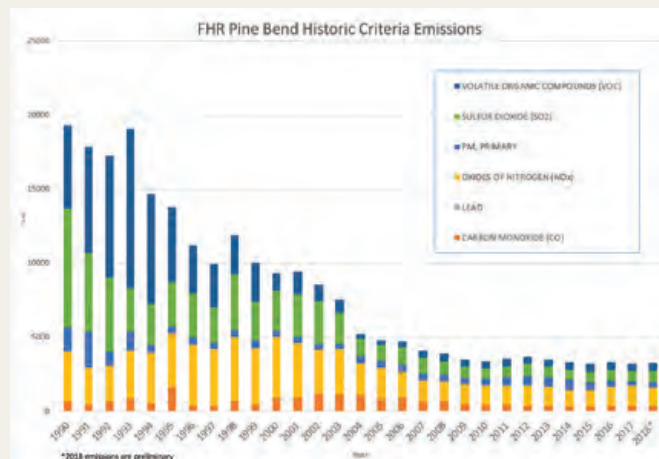
Located 15 miles south of downtown Saint Paul, the Pine Bend Bluffs Natural Area along the shores of the Mississippi River is one of the most diverse ecosystems in

the Twin Cities. Flint Hills Resources partners with Friends of the Mississippi River and Great River Greening each year to restore hundreds of acres of natural prairie and oak savanna. The Pine Bend Bluffs Natural Area provides critical habitats for resident and migratory animals and serves as a migration corridor for millions of songbirds and 40 percent of North America's waterfowl and shorebirds.

Air quality monitoring

The Minnesota Pollution Control Agency (MPCA) maintains a statewide network of air quality monitors, including three air quality monitors around the refinery. These monitors show that air quality around the refinery is well within clean air standards and is consistent with some of the best air quality measurements found anywhere in the state. To learn more, visit www.pca.state.mn.us/air/minnesota-air-monitoring-sites.

The Pine Bend refinery has accomplished lower emissions and improved air quality, while increasing production to help meet demand for transportation fuels. The refinery has reduced total criteria air emissions by approximately 69 percent since 1997, and its emissions per barrel are approximately 20 percent lower than other U.S. refineries.



New virtual reality training

Once a gaming novelty, virtual reality is happening at the Pine Bend refinery. From safety training to manufacturing processes and beyond, operators and engineers are testing new virtual reality training equipment to visualize and help prepare for situations that may occur in the refinery setting. This new training capability was recently demonstrated for the Community Advisory Council and will continue to improve the refinery's safety practices.



Rosemount Fire Department Partner of the Year

In 2018, the City of Rosemount named Flint Hills Resources its 2018 "Partner of the Year," recognizing years of collaboration. Flint Hills maintains a fully functioning, two-house fire department at Pine Bend, and has been providing free industrial fire training to local officers and departments since 1991. Additionally, Flint Hills has donated important training equipment to Dakota County fire departments, including a car fire simulator and a kitchen fire prevention trailer.

Did you know?

- Pine Bend refinery processes about 12 million gallons of fuel per day, enough to fill up 400,000 cars, 17,000 semis and 20 Boeing 747 airplanes.
- Pine Bend is one of the largest producers of asphalt in the United States.
- The crude oil refined at Pine Bend helps produce the chemical building blocks for products people use every day, including appliances, automotive parts, furniture and shoes.
- The Pine Bend fire department has about 30 crew members and more than 100 volunteers, and provides mutual aid industrial fire training to other local departments.
- Flint Hills scientists perform about 28,000 product quality tests per month.
- Pine Bend's wastewater treatment facility processes 3.5 million gallons of water per day and is a 12-time award winner from the Minnesota Pollution Control Agency.



Over the past 10 years, Flint Hills Resources has planted approximately 15,000 trees in Dakota County.

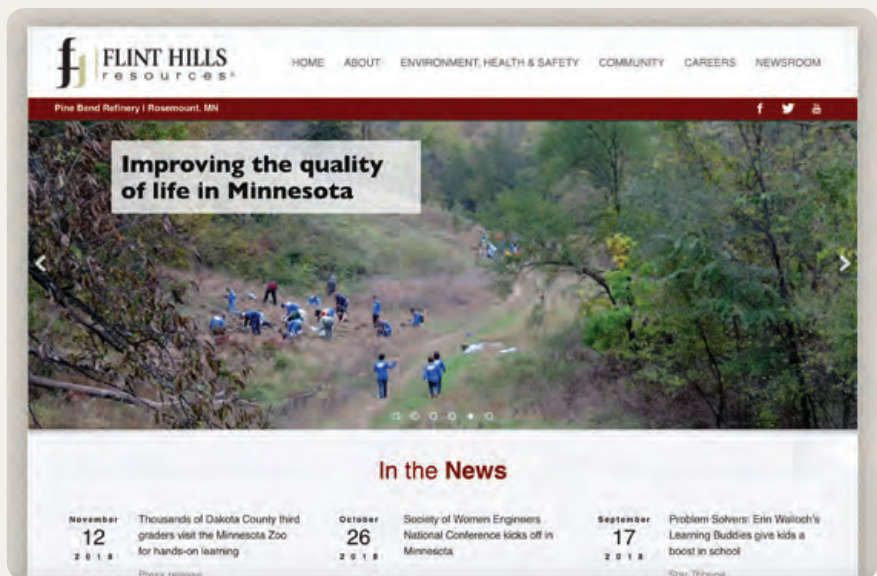
Pine Bend refinery has more than 5,000 miles of pipe (the equivalent of traveling from New York to Los Angeles and back again!).



Keep in touch with Pine Bend

What's new at PineBendRefinery.com?

For the most up-to-date information about Flint Hills Resources Pine Bend refinery, visit PineBendRefinery.com. Our website includes historical information about the refinery, as well as updates about community partnerships and ongoing efforts to protect our environment, health and safety.



Follow us on social media!



Flint Hills Resources Pine Bend refinery is now on Facebook and Twitter!

Like and follow our accounts by April 15, 2019 to be entered to win one of ten \$50 gift cards to Holiday Stationstores!



Facebook.com/FHRPineBend



Twitter.com/FHR_PineBend

Seeking new members for the Community Advisory Council

The Community Advisory Council (CAC) to Flint Hills Resources' Pine Bend refinery is looking for new members. The CAC is an independent group of area residents who represent community interests regarding the operation of the Pine Bend refinery. The CAC is accepting applications for membership through April 10, 2019. For more information and to apply, please visit their website at flinthillscac.org.

