

Vol 60 Number 2
Summer 2021

OVER THE YEARS

Pine Bend Refinery
Marks **65 Years**
in Dakota County



1955-2021



A publication of the Dakota County Historical Society since 1961 \$5.00



LAWSHE MEMORIAL MUSEUM & RESEARCH LIBRARY

Weds - Fri 9 - 5, Sat 10 - 3
130 Third Ave. N.
South St. Paul, MN 55075
(651) 552-7548
e-mail: dakotahistory@co.dakota.mn.us
www.dakotahistory.org



LEDUC HISTORIC ESTATE

May - October
Thurs - Sun 10 - 5
Tours at 10, 11:30, 1, 2:30 & 4
1629 Vermillion St.
Hastings, MN 55033
(651) 438-8480



SIBLEY HISTORIC SITE

Memorial Day - Labor Day
Sat & Sun 1 - 4
1357 Sibley Memorial Hwy.
Mendota, MN 55150
(651) 452-1596

BOARD OF TRUSTEES

Dale Weeks, <i>President</i>	Theresa Palmersheim
Jim Gerten, <i>Vice President</i>	Don Parker
Steve Stremski, <i>Treasurer</i>	Harold Parsons
Bruce Anderson, <i>Secretary</i>	Nicole Sindelar
Beth Baumeister	Maria Therres
Marty Jo Bruyer	Stephanie Tulgren

STAFF

Matthew Carter, *Executive Director*
Rebecca Snyder, *Associate Director*
Laurence Cote-Cournoyer, *Sibley Site Supervisor*
Mariah Ring, *LeDuc Site Supervisor*
Lisa Imbryk, *Marketing & Membership Coordinator*
Susan Ricketts, *Library Assistant*

EDUCATORS

Catherine Abbett	Kara McGowan
Margaret Goderstad	Carol Mladek
Katie Henry	Rhea Nyquist
Rick Magee	Madeline O'Brien

And **240 VOLUNTEERS** contributing more than
6,000 hours annually, **THANK YOU!**

This publication is sponsored by Flint Hills Resources.

© Dakota County Historical Society, 2021

A message from *Executive Director* **MATTHEW CARTER**

Pine Bend was the site of Chief Medicine Bottle's Dakota village, located along the river in Dakota County. The 1851 Treaties pushed the Dakota farther west and opened the area for settlement. With very few settlers in the area and a financial panic in 1857, all hopes for a bustling community were lost.

Today, the Pine Bend Bluffs area is one of the largest undisturbed natural tracts of land left in the Twin Cities metro, located along the Mississippi River. This land is currently owned by Flint Hills Resources. The Pine Bend refinery has been located at the Pine Bend industrial area further west of the river in Rosemount since 1955.

In 2019, the Dakota County Historical Society's Board of Trustees were fortunate to host a board meeting at Flint Hills. While there, Jake Reint, managing director, public affairs, presented the history of Flint Hills to those in attendance. Here, we learned that Flint Hills was to celebrate its 65th anniversary of the Pine Bend refinery in 2020.

Despite COVID, we worked with Flint Hills to create a publication highlighting the company's more than 65-year history in Dakota County. We are beyond grateful for this partnership opportunity to work with Flint Hills Resources to preserve this aspect of Dakota County's history.

We appreciate the generosity and support of Flint Hills Resources in making this publication possible. You too can help us achieve our mission of preserving, interpreting and promoting the history of Dakota County. General donations help to operate our three historic sites. Donations toward our endowment fund special projects within our organization.

History of PETROLEUM REFINERIES

The world's first systematic petroleum refinery was built in Ploiești, Romania, in 1856 using the abundant oil available in the country. In North America, the first oil well was drilled in 1858 by James Miller Williams in Oil Springs, Ontario, Canada.

Petroleum is a mixture of gaseous, liquid and solid hydrocarbons found in varying amounts in sedimentary rock deposits throughout the world. In its crude state, petroleum is practically useless. When refined it supplies fuels, lubricants, illuminants, solvents, surfacing materials and many other products. The fuels derived from it account for half the world's total supply of energy. These fuels are used not only to power the engines of automobiles, tractors, trucks, ships, airplanes and missiles, but also to heat buildings. Petroleum lubricates machines and petroleum cutting oils make possible much of the drilling and grinding processes necessary for mass production.

Asphalt from petroleum covers floors, roofs and highways. Either directly by combustion or indirectly through the generation of electricity, petroleum supplies many people of the world with artificial light. Petroleum products are also used in man-made fibers for clothing, synthetic rubber for tires and other uses; and numerous ingredients used to grow and process food and create medicines. In peacetime, such applications have multiplied as scientists and engineers have developed new processes for refining petroleum and the further processing of by-products has given rise to a whole new industry, petrochemicals.



American Petroleum by J.J. Watson.

*Music cover showing the
Tarr Farm, Oil Creek, Pennsylvania, c. 1864.
From the Library of Congress*

In North America,
the first oil well was
drilled in 1858...

The function of petroleum refining is to divide crude petroleum into its various boiling ranges, called “fractions,” and to reconstitute and refine these fractions into different products. Where possible, refining processes are adapted to meet the demands of the consumer and to minimize waste by utilizing as much of the available crude product as possible.

PINE BEND BY THE NUMBERS

Pine Bend refinery processes about **12 MILLION** gallons of fuel per day, enough to fill up **400,000** cars, **17,000** semis and **20 747** airplanes.

There are more than **5,000** miles of pipe at the refinery – that's the equivalent of traveling from New York to Los Angeles and back again!

In 2020, more than **18,000** refinery lights were replaced with high-efficiency LED lighting.

In 2007, **57** acres of land were donated by Flint Hills Resources for the Flint Hills Athletic Complex in Rosemount.



The refinery's combined heat and power system produces about **50** megawatts of electricity: enough to power about **40%** of the refinery.

TWO new heaters installed at the Pine Bend refinery in 2019 each weigh more than **2 MILLION** pounds and are approximately **9** stories tall.



Join Today!

We are a membership organization

Society members receive:

- Free admission to all three museums
- Over the Years, published three times a year
- Monthly e-newsletter
- Discounts in all museum stores and on special events
- Invitations to special Historical Society events
- The satisfaction of preserving Dakota County's history

- | | |
|--|--|
| <input type="checkbox"/> Senior/Student \$25 | <input type="checkbox"/> Individual \$40 |
| <input type="checkbox"/> Senior Household \$40 | <input type="checkbox"/> Household \$60 |
| <input type="checkbox"/> Sustaining \$100 | <input type="checkbox"/> Silver \$250 |
| <input type="checkbox"/> Gold \$500 | <input type="checkbox"/> Tower \$1,000 |

Name(s) _____

Address: _____

City/State/Zip: _____

Phone: _____

Email*: _____

** To ensure delivery of monthly e-newsletter*

Copy or cut out and return with your membership contribution to:

DCHS
130 Third Ave. N.
South St. Paul, MN 55075

or
www.dakotahistory.org
to take out a membership online

Thank you for your support!

Producing Fuels and Other PRODUCTS PEOPLE DEPEND ON

Since it was established in 1955, the tall refinery columns of Pine Bend have been a familiar landmark to people who live, work and travel through Dakota County. The refinery has long been a primary source of the transportation fuels for Minnesota and much of the region. Over the decades, it has also been a leading local employer, today employing nearly 1,000 people full time and providing regular work to thousands of skilled labor contractors.

The Pine Bend refinery has been in a constant state of change since it began operations as the Great Northern Oil Company in 1955. It started with a refining capacity of 25,000 barrels per day, serving a relatively small portion of the fuel needs of Minnesota, which then had a population of 3.1 million. Today, Minnesota's population is 5.7 million. To help meet growing demand for fuels and other products people need, the refinery

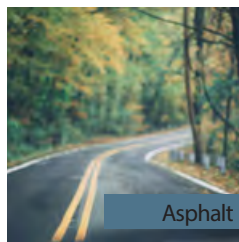
has gradually transformed into one of the nation's largest, most complex and efficient refineries. Today, with an operating capacity of 375,000 barrels per day, Pine Bend is a leading producer of the transportation fuels used throughout the upper Midwest, including most of the fuels Minnesotans rely on every day. The refinery also supplies the vast majority of the jet fuel used at Minneapolis-Saint Paul International Airport. In addition, the refinery produces other products such as propylene, a chemical building-block commonly used in plastic and other products; home heating fuels like propane; and liquid fertilizer. The refinery also is a top producer of asphalt, satisfying more than 10% of nationwide demand for the materials that are used to pave driving surfaces and shingle roofs, among other applications. Here's a look at the wide variety of products that Pine Bend produces and transports internationally from right here in Dakota County.

VIRTUALLY EVERY DROP OF OIL BECOMES A PRODUCT



Ammoniumthiosulfate

Liquid fertilizer used by farmers



Asphalt

Highways, parking lots, buildings, construction sealants, coatings and roofing



AVgas

Personal planes



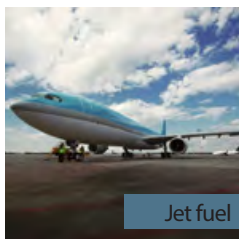
Diesel fuel

Cars, trucks, farm equipment and railroad engines



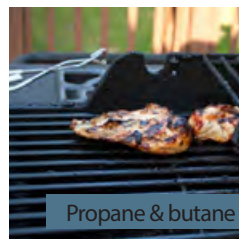
Gasoline

Cars, trucks, boats and snowmobiles



Jet fuel

Commercial airlines and private aircraft



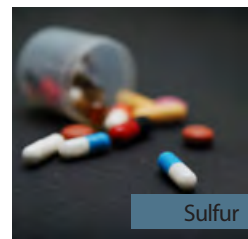
Propane & butane

Heats homes, dries crops, powers outdoor grills and used industrially



Propylene

Plastics, containers, technology and laboratory equipment



Sulfur

Key ingredient in medicines, cosmetics and fertilizer

Plant Managers OVER THE YEARS



Malcom T. McCants
Plant Manager
1954 – 1956



A.S. (Steve) Gilliam
Plant Manager
1956 – 1960



William J. Carthaus
Plant Manager
(Interim)
1960 – 1964



Peter A. Blasco
Plant Manager
1964 – 1970



Thomas Lockhart
VP and Plant Manager
1970 – 1971



Bernard (Bernie) Paulsen
Plant Manager and
VP Refining
1971 – 1974



Bill McKay
Plant Manager
1974 – 1977



John Ehlen
Plant Manager
1977 – 1982



Roger TenNapel
Refinery Manager
1982 – 1989



Carl E. Marhaver
VP Minnesota Operations
and Refinery Manager
1989 – 1995



Tim J. Rusch
VP Minnesota Operations
and Refinery Manager
1995 – 1998



Jeff Wilkes
VP Northern Tier
Operations and Refinery
Manager
1998 – 2007



Scott Lindemann
VP and Manufacturing
Manager
2007 – 2016



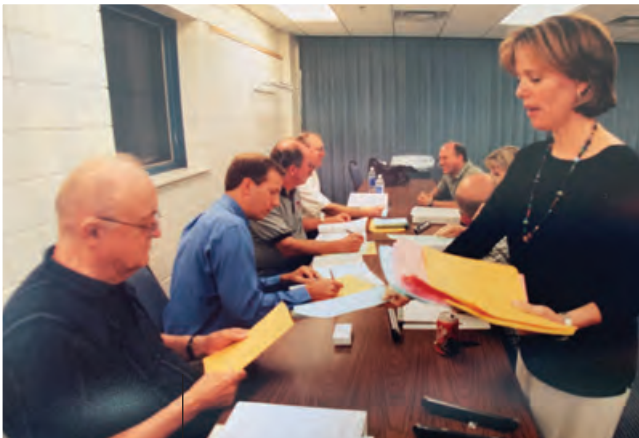
Geoff Glasrud
VP and Manufacturing
Manager
2016 – Present

COMMUNITY ADVISORY COUNCIL

Established in 1998, the Community Advisory Council (CAC) to the Flint Hills Resources Pine Bend refinery is a forum for community members to discuss and make recommendations to the company regarding environmental, safety and other issues of concern to refinery neighbors. Operating independently of Flint Hills Resources, the CAC serves as a community voice when Pine Bend seeks direct feedback regarding refinery operations and plans.

The CAC consists of 20 community members as well as two voting members and one non-voting member from the Pine Bend refinery. Members serve three-year terms and represent the following communities: Apple Valley, Coates, Eagan, Empire Township, Hastings, Inver Grove Heights, Nininger Township, Rosemount and Vermillion Township.

Community members who are interested in serving in this important role can learn more at flinthillscac.org.



COMMUNITY ADVISORY COUNCIL

TO FLINT HILLS RESOURCES PINE BEND REFINERY



65 Years

Key Milestones



1951

Great Northern Oil Company formed February 1 to construct a refinery near St. Paul.

1952

Discovery of oil near Fosterton, Saskatchewan. \$26 million refinery planned for Pine Bend, Dakota County.



According to the January 23, 1954, Minneapolis Tribune, one hint that the refinery was coming to Dakota County was that the president of Great Northern Refinery, William Carthaus, had purchased the Pine Bend home of Sam Buron. The home was featured in an Andersen Windows advertisement in the February 1949 Better Homes and Gardens magazine, left.

1954

William J. Carthaus elected president in February. Groundbreaking on 970 acres of farmland.

1955

Pine Bend becomes the largest of three oil producers in Minnesota. City area assumes the name "Oil capital of the Northwest."

Farmland in Rosemount waiting to be transformed into a world-class oil refinery.



1955



The refinery goes on stream with a processing capacity of **25,000** barrels* per day.



1956

Refinery employs 225 people at Great Northern Oil Company.

1958

Storage tanks designed by Fluor Corporation, right, featured in the anniversary issue of ECHO magazine.



Above, this aerial photograph shows the extent of the excavation necessary to accommodate the new refinery.

*42 gallons in one barrel of oil



Refinery
= processing
capacity



William Carthaus, president of Great Northern Oil, center, examines a 15-foot-long model of the refinery.



Fred Koch



The towboat St. Paul, right, drags barges carrying up to 700,000 gallons of gasoline.



Visitors took a tour of the refinery during a Family Day in the 1950s.

Ground is broken for a new Sulphuric Acid Alkylation plant, Minnesota's first.

1959

Fred Koch's Rock Island Oil & Refining Co. purchases a 35% interest in the Great Northern Oil Co. of Minnesota for \$5 million.

1959

\$1.5 million anti-air/water pollution equipment added to the refinery.

1959

First year river barges move refinery product up the Mississippi River from Pine Bend to St. Paul all winter long

1960

Hastings terminal acquired from the U.S. Army.

1960

39,000
barrels per day



1961

The second sulfur recovery unit is installed.

1963

44,000
barrels per day



1963

65 Years

Key Milestones

1968

New fluid catalytic cracker completed, making it possible to alternate maintenance periods and keep a part of the refinery running year-round.

1970

Koch Refining Company LP acquires remaining shares of Great Northern Oil Company.



KOCH REFINING COMPANY LP

1970



85,000
barrels per day

1973

Koch Refining initiates an emission reduction program with staged additions of a hydrotreater and sulfur recovery unit, and improves fuel oil quality.

1974



100,000
barrels per day

1977

Demolition begins on the original thermoform catalytic cracker unit, constructed in 1955.

1979

The refinery processes 130,000 barrels of crude oil per day, brought in by pipeline from Canada and North Dakota and by pipeline and barge from the Gulf Coast.



The old main control room displays operations for one half of the refinery.



*Early photo of cokers
1 and 2, above*



*The original thermoform
catalytic cracker unit*



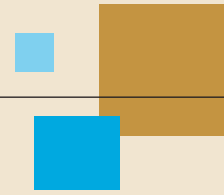
Aerial view in the 1970s



Aerial view in the 1980s



Aerial view in the 1990s



140,000
barrels per day



1983

Ducks Unlimited
partnership begins.



1985

200,000
barrels per day



1988

Along with a 38-unit
gas hydrotreater
revamp, a new west tank
farm is added.

1988

A new jet fuel pipeline to
Minneapolis-St. Paul International
Airport is completed.

1988

The inaugural year of the
Discovery Scholarship program,
recognizing outstanding high
school students in
Dakota County

1991

Prior to construction of the
Clean Fuels Project, new
flare lines are installed, left,
for the new air assist
flare system.

1992

65 Years

Key Milestones

1993



245,000
barrels per day

The Low Sulfur Clean Fuels project is completed.

1994



255,000
barrels per day

1996



280,000
barrels per day

1997

Pine Bend has reduced its flare use by 85% since 1997. Flares, right, are part of the refinery's safety and environmental control system.

FLARE GAS RECOVERY SYSTEM



1998

The Community Advisory Council to Flint Hills Resources is established.

COMMUNITY ADVISORY COUNCIL

TO FLINT HILLS RESOURCES PINE BEND REFINERY

1999

Refinery begins production of lower sulfur gasoline.

2000

In consultation with the Minnesota Center for Environmental Advocacy, the refinery launches an initiative to reduce emissions by 50% over five years.



Pine Bend skyline at sunset





The Flint Hills
Family Festival's
inaugural year in
St. Paul

2000



The Pine Bend Bluffs
restoration project begins in
partnership with Friends of
the Mississippi River and
Great River Greening.

2001

Refining business, including
Pine Bend, reorganizes as
Flint Hills Resources.



2002

Project Green Fleet



The Environmental Protection Agency
awards Pine Bend a clean air award
for its program to reduce flaring.

2004



*2005: Start of water recycling program which
enables Pine Bend to reuse discharged water*

The start of a \$400 million project
to increase production capacity by
50,000 barrels per day

2005

The Environmental Initiative
collaboration begins with Clean Air
Minnesota and Project Green Fleet.

2005




Pine Bend achieves MN Star
status for outstanding safety
and performance.

2006

65 Years

Key Milestones

2007

 **339,000**
barrels per day



2010

Pine Bend refinery receives the Governor's Safety Award from the Minnesota Safety Council.

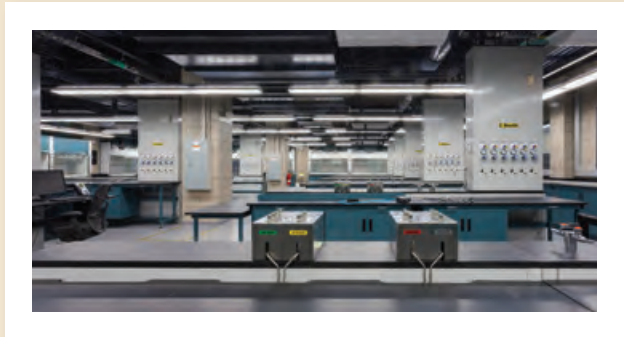


2014

Pine Bend becomes the first-ever PRO-10 certified worksite.

2015

New 135,000-square-foot contractor building opens at Pine Bend.



2015: New testing laboratory opens, where scientists perform 35,000 tests monthly.

2017

Pine Bend refinery is named EPA's ENERGY STAR® Partner of the Year.

2019


Pine Bend adds ammonium thiosulfate (ATS) technology and distribution terminal.

2019

Flint Hills unveils more than \$400 million in new technologies and equipment upgrades to improve efficiency, lower emissions and increase production.

At Flint Hills refinery, the state's biggest construction job since U.S. Bank Stadium is done
Flint Hills' \$400M project saves money, boosts efficiency, creates new product
By Mike Fitzgerald Star Tribune | 10/10/2019 4:51 PM

2020

 **375,000**
barrels per day



IN THE COMMUNITY

Flint Hills Resources Pine Bend supports many of the programs and organizations that help make Minnesota a special place to live and work. The company contributes time, talent and dollars to a variety of organizations focused in three areas, including environmental stewardship, education and safety.



ENVIRONMENTAL STEWARDSHIP

- Pine Bend is a founding sponsor of Project Green Fleet, a collaborative effort with Environmental Initiative to install pollution control equipment in thousands of Minnesota school buses, heavy-duty trucks and other diesel vehicles. Since 2005, Project Green Fleet has modified more than 3,200 Minnesota school buses and 1,300 diesel trucks.
- In 2020, Flint Hills worked with Environmental Initiative to launch Project CAR, which reimburses Minnesota repair shops for fixing vehicle exhaust systems in cars of lower-income community members.
- For more than 30 years, Flint Hills Resources Pine Bend and Ducks Unlimited have worked together to conserve nearly 250,000 acres of Minnesota lake and wildlife habitat.

EDUCATION

- Since 2000, the Flint Hills Resources Pine Bend refinery has sponsored the world-class Flint Hills Family Festival in St. Paul presented by the Ordway Center for the Performing Arts. The festival provides children and families the opportunity to experience international puppetry, dance, music, drama, acrobatics and culture.
- Through a partnership with the Science Museum of Minnesota, Flint Hills Resources helps spark students' interest in science. Since 1998, the refinery's support has allowed more than 145,000 Minnesota students to experience interactive school assemblies and take memorable sleepover field trips to the museum.

IN THE COMMUNITY

OVER THE YEARS: PINE BEND REFINERY

EDUCATION

- Since 2002, the Pine Bend refinery has sponsored the FOX 9 Girls, Science and Technology program that engages thousands of girls each year in scientific experiments and introduces them to inspiring women working in fast-growing science, engineering and technology careers.
- The Pine Bend refinery partners with the Minnesota Zoo to provide enriching educational opportunities for students, families and the entire community to experience wildlife at the zoo. This includes the ZOOMS STEM Design Challenge, which provides students with real zoo-based challenges and asks them to develop solutions using their creativity, math, science and engineering skills.
- Since its creation in 1991, Flint Hills' Discovery Scholarships have helped advance the academic careers of more than 450 students from high schools in Dakota County by awarding more than \$850,000 in total scholarships.



Spotlight ON



DARTS Learning Buddies

Since 1997, the Flint Hills Resources Pine Bend refinery has supported the DARTS Learning Buddies program, which brings together older adults and students in kindergarten through fifth grade to share experiences and learn from one another.

The program focuses on math, science and reading. Approximately 50,000 children in Dakota and Scott counties have been mentored during more than 88,000 hours with Learning Buddies over the years.

Spotlight ON



Dakota County Fire Chiefs Association

Flint Hills Resources Pine Bend refinery provides resources to enable local firefighters to safely serve their communities.

The refinery has donated a car fire simulator and kitchen fire prevention trailer to the Dakota County Fire Chiefs Association so local firefighters have a safe way to simulate fighting these common fires. The simulators are shared by all fire departments in Dakota County and are also used for public education purposes.

The Rosemount Fire Department named Flint Hills Resources its 2018 Partner of the Year in recognition of its years of partnership with Rosemount and other Dakota County fire departments.



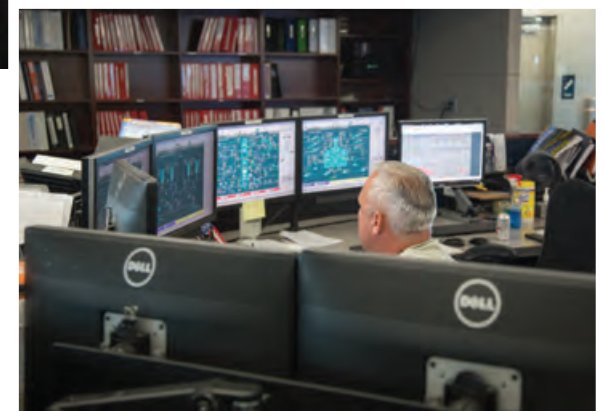
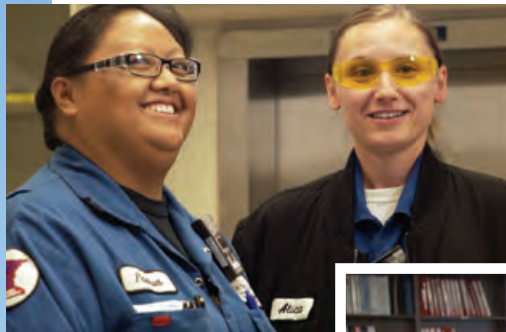
Flint Hills Resources Pine Bend refinery Fire Chief Ed Steele (right) receives the Minnesota State Fire Chiefs Association 2019 Partner of the Year award with Commissioner John Harrington of the Minnesota Department of Public Safety.

SAFETY

- The Pine Bend Fire Department's more than 100 crew members, including full-time professional firefighters and volunteers, receive ongoing training on all aspects of industrial emergency response and battle live, pressurized petroleum fires at an onsite training center. The department also provides mutual aid industrial fire training to the Rosemount, Eagan, Inver Grove Heights and Hastings fire departments.
- Flint Hills Resources' Pine Bend refinery hosts free training sessions for law enforcement from across the state at its training facility.
- Fire training scholarships are available to local firefighters for attending industrial fire training programs around the country.

A SKILLED WORKFORCE

The Pine Bend refinery relies on a dedicated workforce of approximately 1,000 full-time employees and hundreds and sometimes thousands of contracted skilled laborers from the Minnesota State Building and Construction Trades Council. Refinery jobs include pipefitters, plumbers, carpenters, electricians, engineers, lab technicians, unit operators, marketers, accountants, environmental scientists, logistics coordinators, warehouse workers, and compliance and product stewardship specialists. Among the workforce are approximately 600 enrolled members of the United Steelworkers Local 662 Union. The Pine Bend refinery is considered Minnesota's largest continuous construction site.



A KOCH COMPANY

Based in Wichita, Kansas, Flint Hills Resources employs approximately 3,300 people and is a wholly owned subsidiary of Koch Industries, Inc., which is one of the world's largest private companies with more than 120,000 employees. Other Koch companies include Georgia-Pacific, INVISTA, Molex, Guardian Industries and Infor.



ENVIRONMENTAL & SAFETY PERFORMANCE

Apart from its physical transformation, Pine Bend has changed in many other ways over the decades. After experiencing environmental challenges and receiving several fines in the 1990s, the company made great strides in improving efficiency and minimizing environmental impact.

ENVIRONMENTAL HIGHLIGHTS

- 70% reduction in traditional criteria emissions since 1997 while increasing production
- 20% lower overall air emissions per barrel than the industry average for large refineries
- Industry leader in flare management
- 14-time Wastewater Treatment Facility Award winner from the Minnesota Pollution Control Agency
- Certified ENERGY STAR® facility by the U.S. Environmental Protection Agency

SAFETY HIGHLIGHTS

- Certified Minnesota STAR site, which recognizes companies with safety and health management systems that go beyond basic compliance
- 73% decrease in recordable injuries over the past 15 years
- Fully functioning, two-house fire department, which opened in 1991



NEW TECHNOLOGIES ONLINE

In 2019, Flint Hills Resources completed major construction on several projects totaling \$400 million to continue reducing emissions while creating more of the fuel and other products people need and use every day. These investments included:

Ammonium Thiosulfate: One of the world's largest applications of a technology that converts sulfur, a traditional source of air pollution, into fertilizer

A state-of-the-art **combined heat and power system** that satisfies approximately 40% of the refinery's power needs

Two modernized cooling towers to reduce energy consumption by at least 10%

A new **670,000-pound gasoil fractionator** to improve the refinery's diesel fuel production

1.



2.



3.



4.



THE PEOPLE OF PINE BEND

Meet some of the talented professionals who have built a career at the Pine Bend refinery.



**WENDY
WILDENBERG**

Chemical Engineer
and Technical Leader
Wendy Wildenberg is an

expert in hydroprocessing technology. Over the past 25 years, Wendy has led significant projects at Flint Hills Resources' Pine Bend refinery that help the refinery increase production of the fuels people need while improving environmental performance.

DON KERN

Engineering and
Facilities Manager

Don Kern retired
in 2021 after

spending 35 years

with Flint Hills. During his career, Don played a major role in establishing environmental partnerships throughout Dakota County, including the refinery's role in restoring the Pine Bend Bluffs Natural Area.



THE ISTA FAMILY

Gary Ista, a second-generation Flint Hills Resources employee, retired after a 40-year career, the second-longest tenure in the refinery's history. Gary's mother, Mary Lou, worked as an accountant for the refinery in the 1960s and 1970s. His son Aaron has carried on the family tradition, working at the refinery as a contractor for more than 13 years. Gary held a dozen positions during his career at Pine Bend, including unit operator, pipefitter, fire chief, emergency response coordinator and shift manager.

COURTNEY RAU

Courtney Rau, who got her start through an internship, is an operations business leader focused on environmental, health and safety performance. She's a passionate advocate for science, engineering and technology learning, volunteering her time to help girls explore these important fields and mentor mechanical engineering students at the University of Minnesota.



Restoring THE PINE BEND BLUFFS



*A rusty patched
bumble bee*

Since 2000, Flint Hills Resources Pine Bend has partnered with Friends of the Mississippi River and Great River Greening to restore hundreds of acres of natural prairie and oak savanna in an area known as the Pine Bend Bluffs Natural Area along the Mississippi River. Flint Hills' goal is to restore the land to pre-settlement conditions through the protection and enhancement of native prairie plants, prescribed burns to rejuvenate the land, and the removal of invasive plants. Over time, the native plants will become dominant and increase in density. Through the years, volunteers from Flint Hills and the community have spent their days monitoring monarchs, planting pollinator-friendly species, collecting and spreading native seeds, and removing invasive species.

Volunteers planting native species.



The restored savannah



*A monarch
butterfly on
liatris*

Today, the area provides critical habitat for both resident and migratory animals, and is a migration corridor for millions of songbirds and 40% of North America's waterfowl and shorebirds. During the past nine years, 113 different species have been spotted at the Pine Bend Bluffs, of which at least 70 are likely breeding. One of these species is a rare bee that has been discovered at the Pine Bend Bluffs in 2019 and 2020. Identified as a rusty patched bumble bee, this single bee represents approximately 0.2% of the population of this species in the world.



*RESULTS! Left and below:
Before and after the clearcut*



Conservation Collaboration: FLINT HILLS RESOURCES AND DUCKS UNLIMITED

Ducks Unlimited is one of the refinery's longest-standing community partners. Since 1985, Flint Hills Resources has partnered with Ducks Unlimited to conserve more than 250,000 acres across North America – many of those acres are here in Minnesota. The nonprofit works in all 50 states to preserve and protect natural habitats for waterfowl, wildlife and people. In 2019, Flint Hills Resources surpassed more than \$1 million in giving to Ducks Unlimited.

In 2007, Flint Hills Resources helped capitalize the newly formed Living Lakes Initiative. Through this initiative, Ducks Unlimited focuses on three areas: enhancement of shallow lakes, restoration and protection of small wetlands and native prairie uplands, and acquisition of wetlands and surrounding uplands from willing landowners to increase public holdings.

Flint Hills and Ducks Unlimited worked with the Minnesota Department of Natural Resources to restore Smith Lake in Wright County, an impaired shallow lake with poor water quality overrun with invasive plants and aquatic species. The goal of the project is to restore habitat for native plants and animals.



“Flint Hills Resources is one of our longest-standing corporate sponsors. Their commitment to conservation has allowed us to make major ecological impacts across North America, and for that we are thankful.”

– Adam DeHaan, Ducks Unlimited



DAKOTA COUNTY

Sightings



A group of employee volunteers at Flint Hills carefully monitors artificial nesting structures for bluebirds on the refinery property. The group shares its findings with the Minnesota Bluebird Recovery Program.

Flint Hills Resources awards annual Discovery Scholarships to college-bound students from the surrounding area.



From Rosemount's Leprechaun Days to Hastings' Rivertown Days, the people of Pine Bend and their bright red fire trucks are a familiar sight at community festivals and parades.





Employee volunteers join Friends of the Mississippi River and Great River Greening to lead annual cleanup efforts throughout the Pine Bend Bluffs Natural Area.



The refinery has enlisted the help of grazing goats to eat invasive species as part of an innovative approach to managing and restoring the Pine Bend Bluffs Natural Area.

Flint Hills has planted hundreds of native trees since 2008 as part of its commitment to protecting the natural environment surrounding the refinery. The company has planted more than 15,000 trees in Dakota County.



LOOKING TO THE FUTURE

While Pine Bend has been operating in Dakota County since 1955, the nature of its work is constantly changing with technology, and so is its workforce. Today's Pine Bend is a center of innovation. Its employees have diverse backgrounds and skills and are committed to the continuous improvement and transformation of the refinery's operations. Pine Bend is the largest private employer in Rosemount and represents a significant portion of the city's tax base.



BEN VAUGHT
Business Team Leader



UGOCHI EGBE
Large Capital Project Engineer



AUDREY HAINES
Plant Engineer

GENERATIONS OF CHANGE



Chase Koch, grandson of Fred Koch, admires a historical timeline and takes note of the date when his grandfather's company acquired an interest in the Pine Bend refinery in 1959.

Flashback...

TO THE 1980s and 90s AT PINE BEND





**Dakota County
Historical Society**



130 Third Ave. N.
South St. Paul, MN 55075
(651) 552-7548
www.dakotahistory.org