



DNR Land Sales/Online Auctions

Susan Damon | Assistant Director, Division of Lands and Minerals

Why does the DNR sell land?

- DNR works to improve its public land asset and sales are an important tool in managing public lands.
- The DNR sells school trust land because:
 - Sale meets DNR's fiduciary responsibilities on trust lands.
 - Limited revenue generation opportunities from parcel
 - No management access
 - Isolated, not adjacent to other state land
 - Resolution of trespass
- DNR seeks advice from School Trust Lands Director

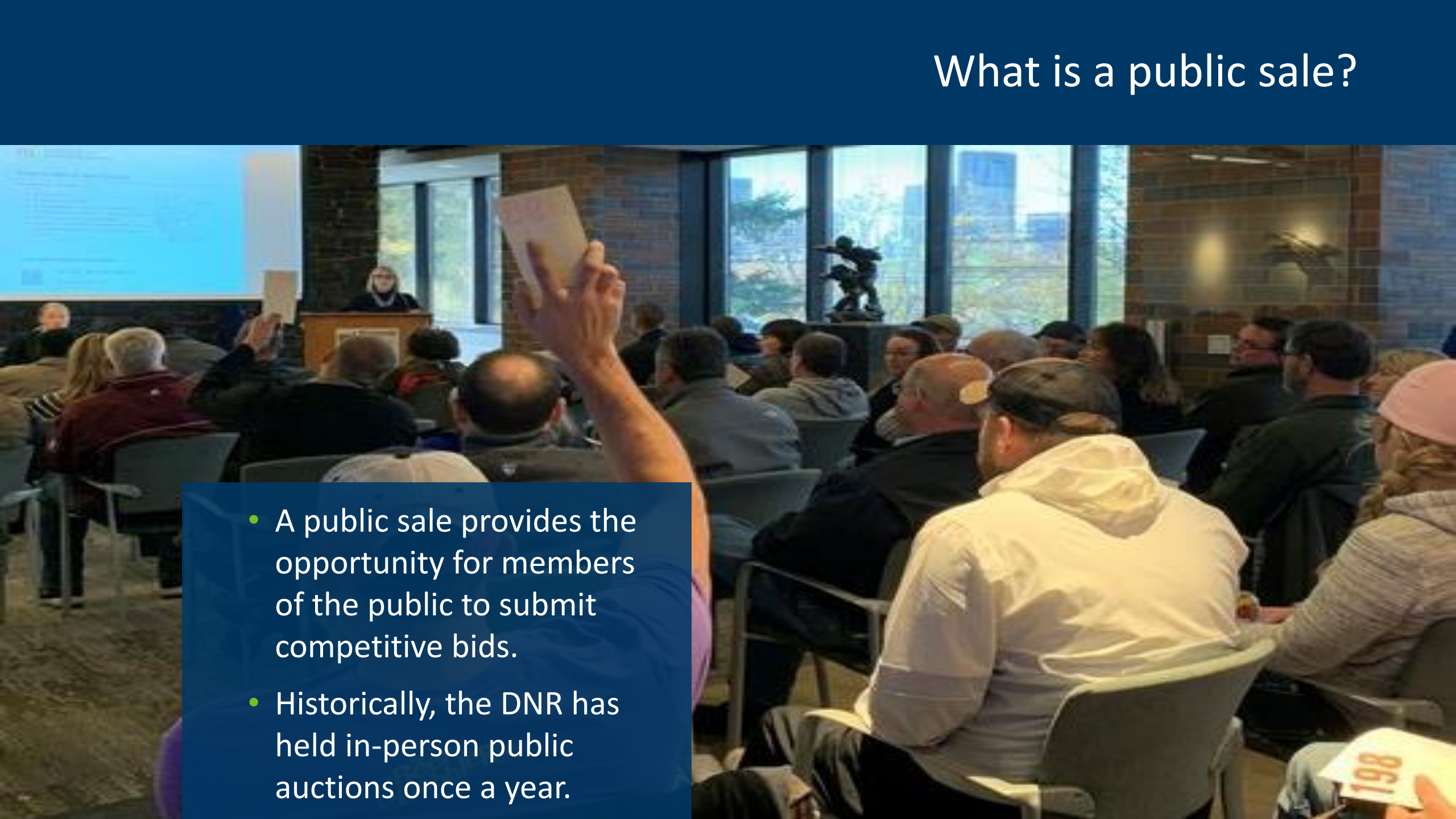


How does the DNR sell land?

- DNR generally sells land by public sale/competitive bid. The minimum bid for a parcel includes both the market value of the land plus DNR costs in preparing the property for sale.
- Minn. Const., Art XI, Section 8 requires school trust land to be sold by public sale.



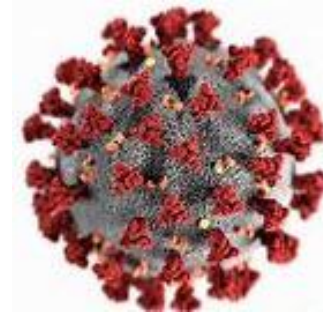
What is a public sale?

- 
- A photograph of a public auction taking place in a large room with high ceilings and large windows. A person is seated at a podium on the left, addressing the audience. In the foreground, a person is raising their hand, holding a white card. Other people in the audience are also visible, some holding cards. The room has a modern, open-plan design with brick walls and large windows overlooking a cityscape.
- A public sale provides the opportunity for members of the public to submit competitive bids.
 - Historically, the DNR has held in-person public auctions once a year.

Legal authority for online auctions

- DNR land sales process improvement project in 2017 and 2018
- One recommendation from the project was to seek legal authority to hold public sales via online auction:
 - Expand pool of potential buyers
 - Reduce sales costs
- An amendment to Minn. Stat. sec. 94.10, subd. 2 was passed in 2018, providing:
 - (f) Public sales of surplus state-owned land may be conducted through online auctions.
- 2018 and 2019 sales still held in person; land sale coordinator began investigating possible online auction platforms

2020 COVID-19 Pandemic



In-person auction not possible in 2020 because of pandemic

What to do?

2020 Solution: Sealed Bid Auction

- WebEx option that allowed for public participation in the bid presentation

Upcoming land sale bid presentation

We've chosen to use WebEx Event Center to allow for your participation in the official bid presentation, while keeping in mind the health and safety of each of you and our DNR staff.

Friday, Nov. 6 | 11 a.m. – 1 p.m. | [Link to WebEx Event Center](#) (pre-registration required)

This virtual presentation, hosted by Lands and Minerals staff, will announce all of the properties and bids, including the highest bidder.

- You can participate in this virtual event by computer, tablet, smartphone or telephone
- After registering for the event, you will receive a confirmation email with information about how to join the meeting.

Individuals with a disability, who need a reasonable accommodation to participate in this event, please email [Andrea Johnson](#) or call 651-259-5432 or through your preferred Telecommunications Relay Provider. Live captioning will be available.

Before you join the event, please make sure that you have the appropriate players to view media files in the event. The WebEx event entry screen, shown below, will prompt you to take this step.

 cisco Webex

For  m

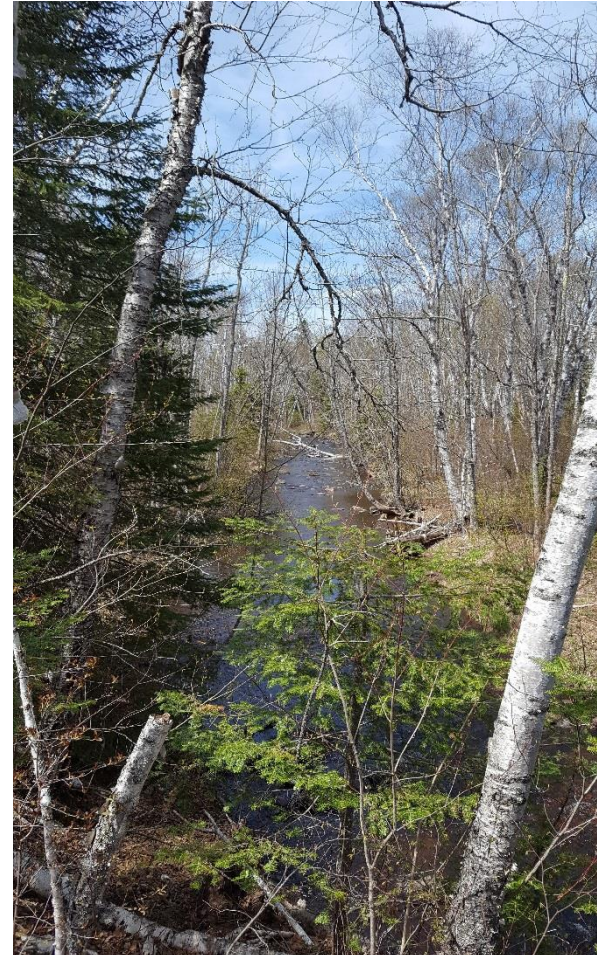
2020 Sealed Bid Auction Results

Statewide Statistics

- 18 parcels offered (9 school trust)
- 39 bids received by mail
- 11 of 18 parcels sold
- 10 parcels sold over minimum bid
- Bidding by adjoining owners
- 1 parcel bid up 3x's minimum bid

School Trust Statistics

- 5 school trust parcels sold
- 1 school trust purchaser subsequently defaulted




MinnBid.org is the Dept. of Administration's Online Auction Platform for Sales of Surplus State Property

The screenshot shows the mobile interface of the MinnBid.org website. At the top, there is a navigation bar with the Department of Administration Surplus logo and several menu items: Online Auction, Live Auctions, Search Sold Items, Contact Us, Mailing List, Fleet & Surplus Services, Register, and Login. Below the navigation bar, the page title is "Lot # 39117" with a "BACK" button. A yellow banner prompts users to login to bid. The main content area is divided into two columns. The left column contains a "Closing Time" of 10/11/2021 12:50 PM and a "Countdown" of 3 Days 2 Hours 5 Mins 16 Sec. Below this is a small image of the bus and a table with bid statistics: High Bid (\$1095.00), Next Bid (\$1120.00), Bid Increment (\$25.00), Watching (3), Bids (7), and High Bidder (6198). The right column features a large image of the bus with the number 3100 on the front. Below the image is a "Bid History" table.

Lot # 39117 [BACK](#)

Please login to bid in Online Auction.
If you don't have a bidder account yet, please click here to complete your registration and receive your password.


Closing Time 10/11/2021 12:50 PM
Countdown 3 Days 2 Hours 5 Mins 16 Sec

	High Bid \$1095.00	Bid Increment \$25.00
	Next Bid \$1120.00	
Watching 3	Bids 7	High Bidder 6198

Bid History

Bidder #	Amount	Bid Time
6198	\$1095.00	10/08 9:29:17 AM
62539	\$1070.00	10/08 8:38:40 AM
62539	\$1045.00	10/08 8:38:00 AM

Images **Description** **Questions**

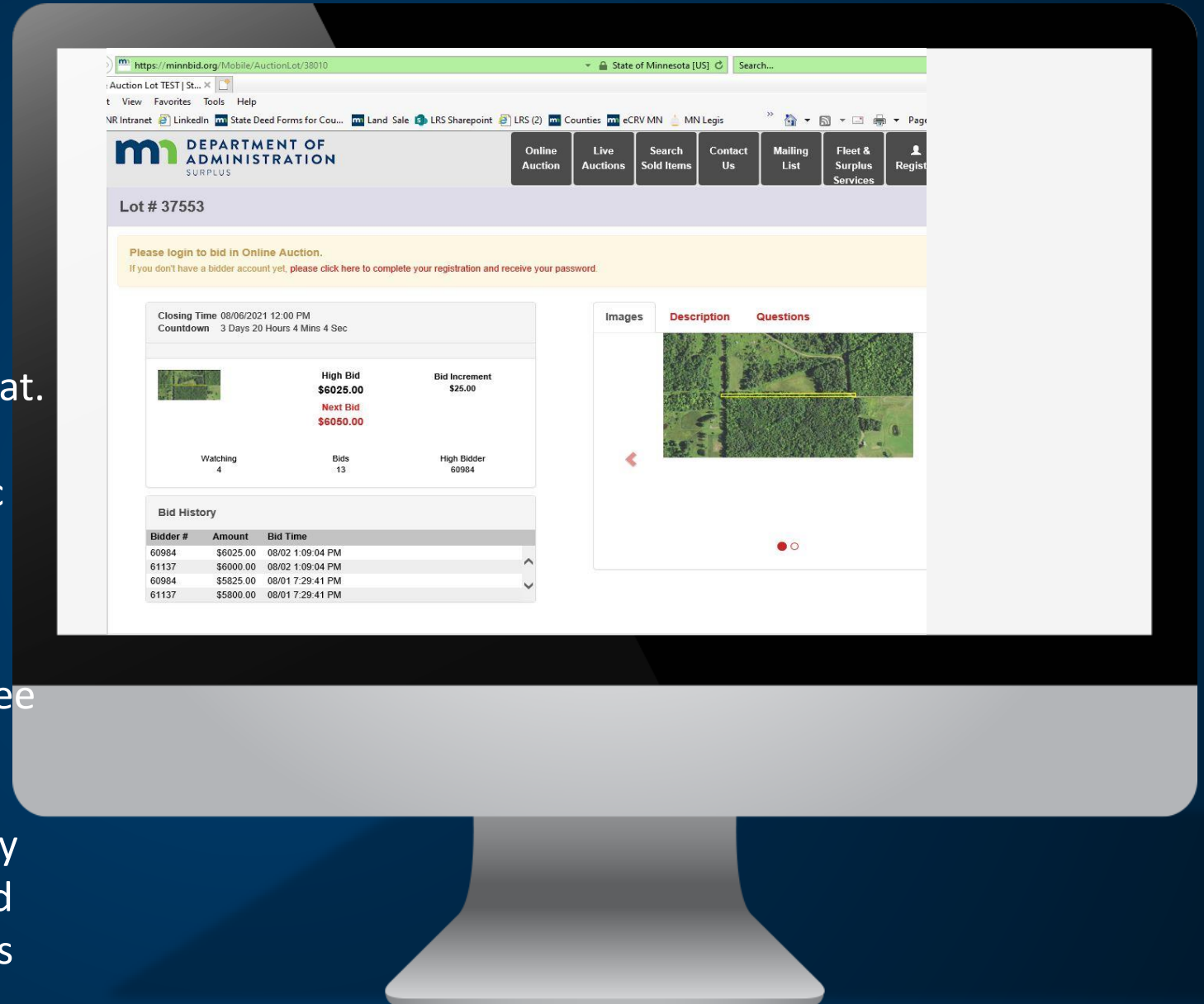


3100

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Could DNR use MinnBid.org for land sales?

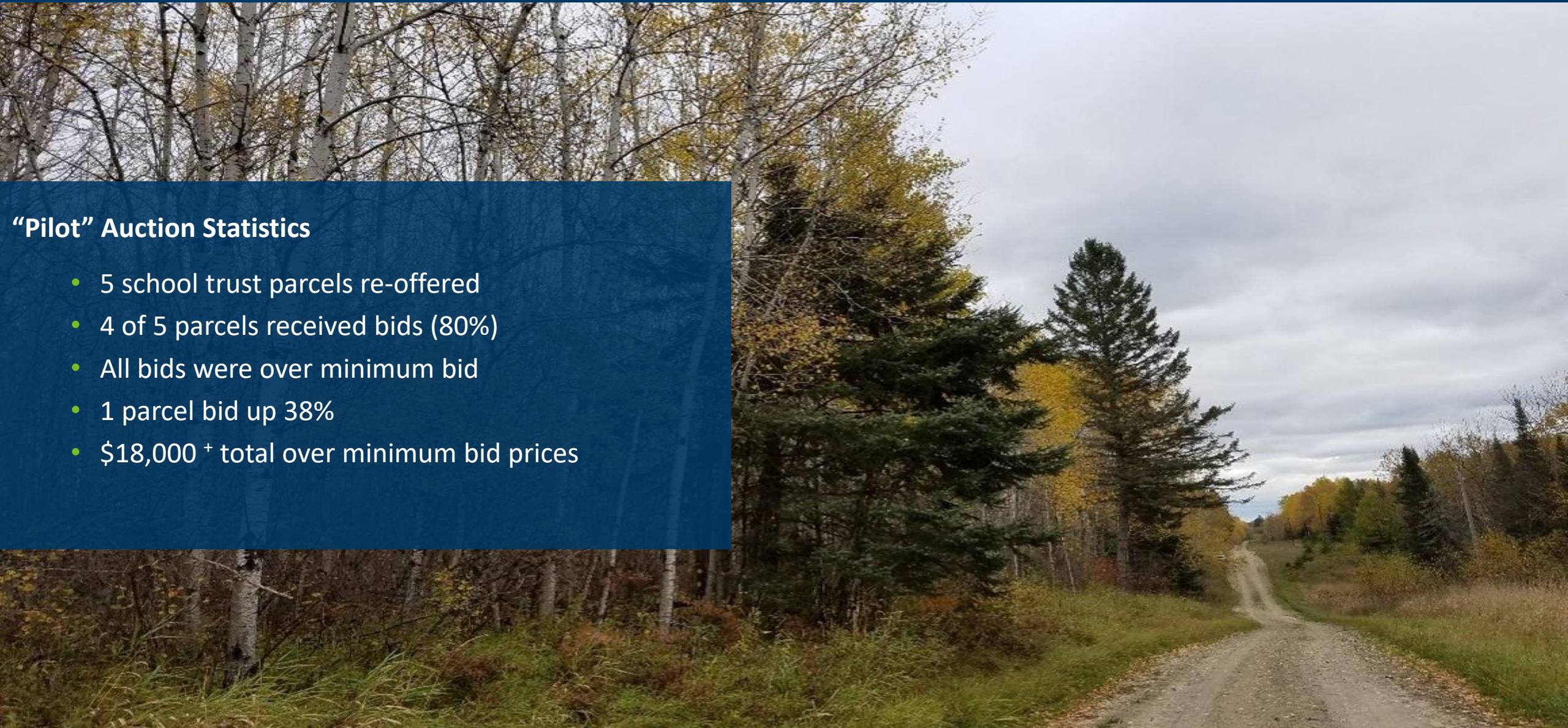
- Consistent with Minn. Stat. 94.10, subd. 2 (f), authorizing online public auctions
- Department of Administration did not see any barriers
- DNR still needs to comply with statutory notice and publication requirements



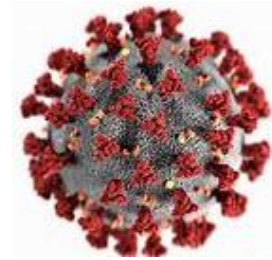
2021 “Pilot” Auction via MinnBid

“Pilot” Auction Statistics

- 5 school trust parcels re-offered
- 4 of 5 parcels received bids (80%)
- All bids were over minimum bid
- 1 parcel bid up 38%
- \$18,000 + total over minimum bid prices



2021 Fall Auction



Pandemic isn't over

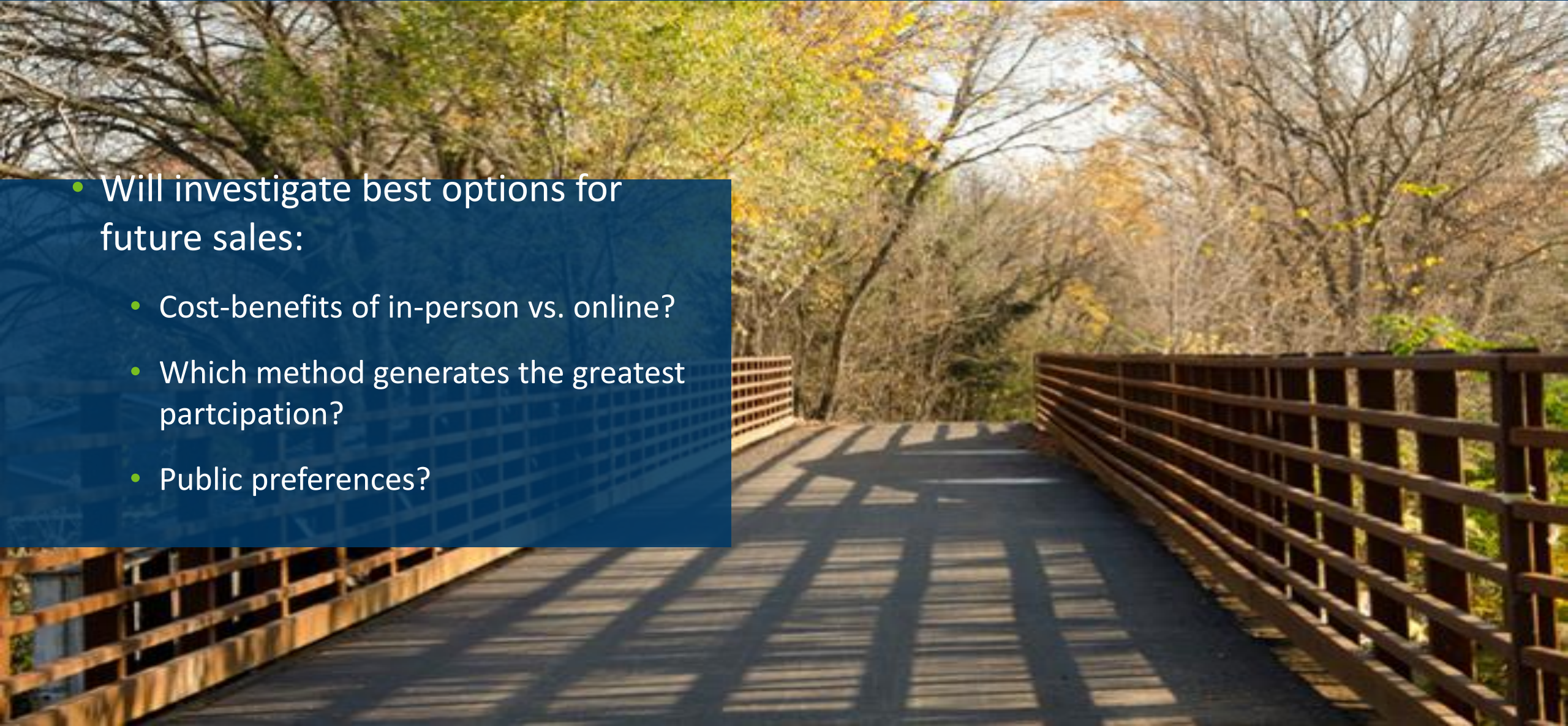
Safety concerns about
holding in-person auction

2021 Fall Auction II

- Will use MinnBid.org again
- Mix of rural and lakeshore, possible office site sale
- Will include several school trust parcels

Future DNR Land Sales

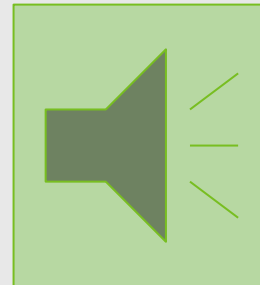
- Will investigate best options for future sales:
 - Cost-benefits of in-person vs. online?
 - Which method generates the greatest participation?
 - Public preferences?



Questions or Comments?



Questions?



Comments?

Trust Fund baby? Yes.

All **862,971** public school students in the state of Minnesota have a trust fund to help pay for their education.

2.5 million total acres of land—that's larger than the states of Rhode Island and Delaware combined.

193 million tons of iron ore mined... producing enough steel to build **424,000** modern wind turbines.

\$272 million distributed in the past 10 years.

170 water access sites provide free access to 1,568 square miles of Minnesota lakes.

Sufficient wood fiber from sustainable timber harvests for **3 billion notebooks**.

Since 2010 the value of the Permanent School Fund has grown from:

\$675 million in 2010 to **\$1.4 billion** in 2019

MINNESOTA SCHOOL TRUST LANDS

© 2019, State of Minnesota

Minerals Update

October 13, 2021

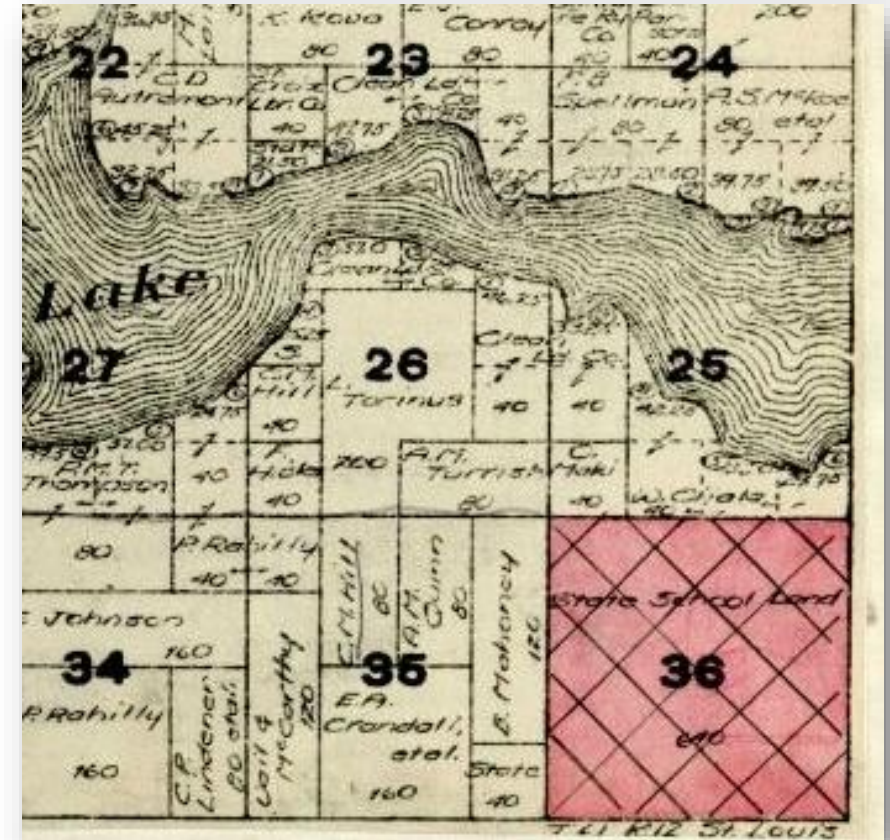
Thank you!

- 130 year history of mineral leasing
- 130 years of consecutive income to the school trust

DNR's Designated Role in Mineral Management

- DNR is the designated trustee to public schools, the university, and counties:
 - The DNR has the duty to manage lands to generate revenue for these trusts lands in an environmentally sound manner
 - The state manages 12 million acres of mineral rights
 - 5 million acres of these lands are Permanent School Trust Lands
- The largest source of revenue for these funds has come from Minnesota's minerals

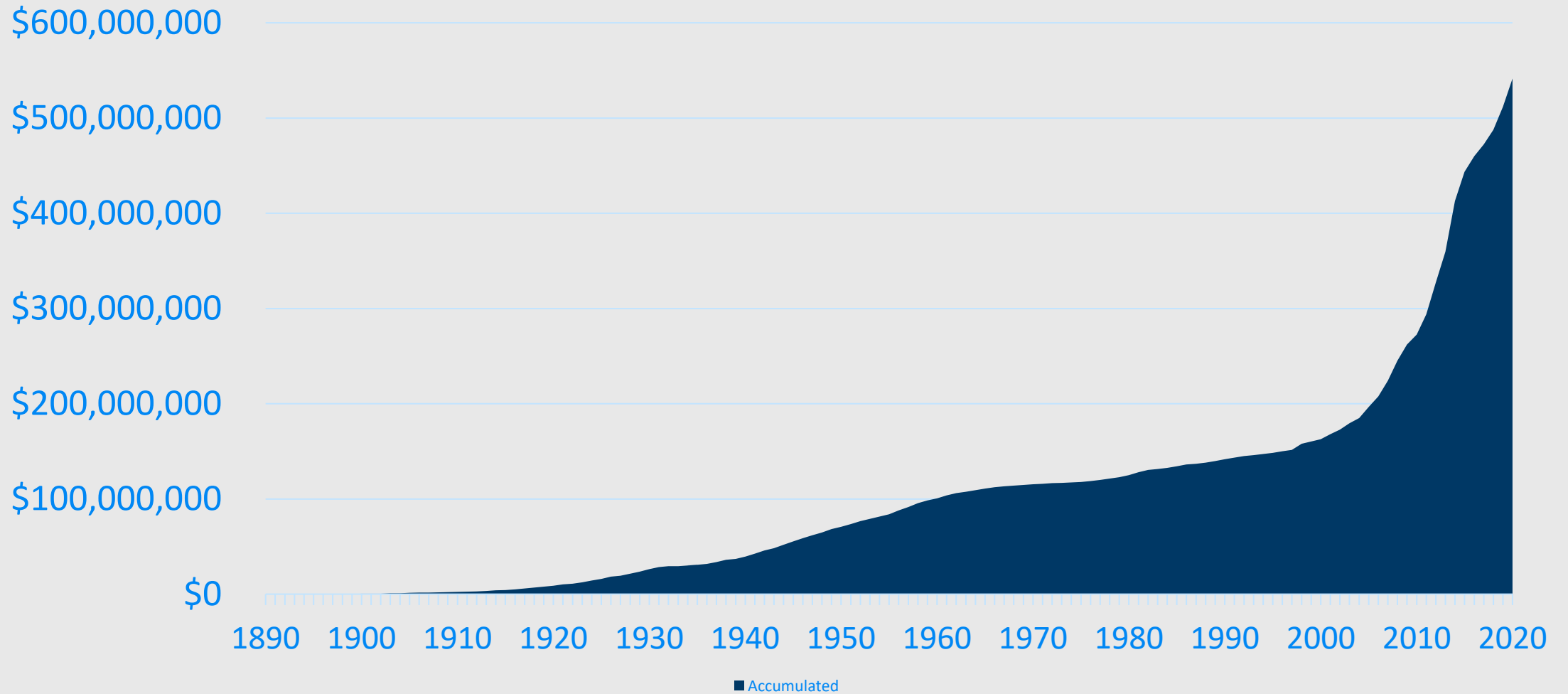
(Minn. Const. art. XI, sec. 8 and Minn. Stat. §127A.351)



School Trust Mineral Leases 1890-2020

Lease Type	First Revenue	Latest Revenue	Accumulated Revenue
Iron Ore - Taconite	1890	2020	\$529,414,177
Other Metallic	1967	2020	8,263,820
Industrial Minerals	1934	2020	384,667
Peat	1980	2020	<u>1,707,597</u>
Total			\$539,770,261

Accumulated School Trust Mineral Revenue



These are the Good Old Days

- 130 year history - \$528 million
- Last 10 years - \$267 million – 50%
- And FY 2020 and 2021 are above the most recent 10-year average.

School Trust Mineral Receipts

Lease Type	2011 -2020 Average	2020	2021
Iron Ore - Taconite	\$25,509,900	\$27,127,405	\$27,638,694
Iron Ore - Residue	472,546	36,091	71,085
Other Metallic	506,917	527,469	542,581
Industrial Minerals	37,702	97,619	141,846
Peat	63,672	28,090	29,877
Other	<u>135,995</u>	<u>117,270</u>	<u>101,616</u>
Total	\$26,726,733	\$27,933,944	\$28,525,699

95%

School Trust Iron Ore Receipts

Lease Type	2011 -2020 Average	2020	2021
US Steel - Minntac	\$24,078,717	\$25,599,360	\$25,804,546
All Others	<u>1,143,183</u>	<u>1,528,045</u>	<u>1,834,148</u>
Total	\$25,509,900	\$27,127,405	\$27,638,694

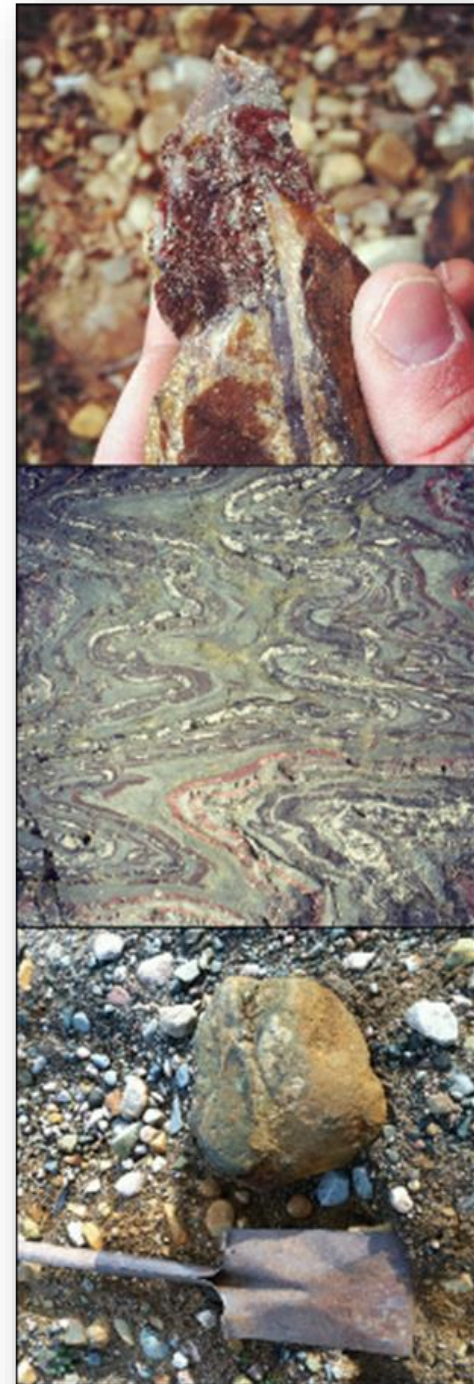
Minnesota has a Diverse Mineral Portfolio

Metallic Minerals

- Iron ore/Taconite
- Copper
- Nickel
- Cobalt
- Platinum Group Metals
- Manganese
- Titanium
- Gold

Non-Metallic Minerals

- ▶ Sand and Gravel
- ▶ Crushed Stone
- ▶ Peat
- ▶ Dimension Stone
- ▶ Kaolinite



Sustaining School Trust Mineral Receipts



- Supporting iron ore
- Diversify the minerals portfolio

Emerging trends potentially impacting Minnesota's minerals



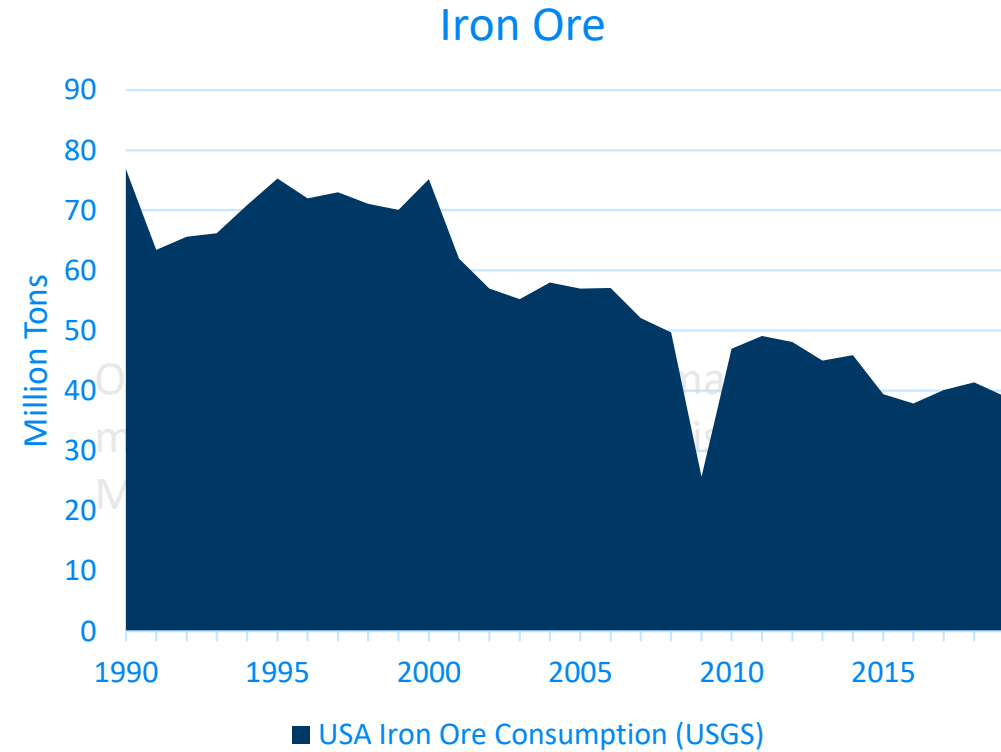
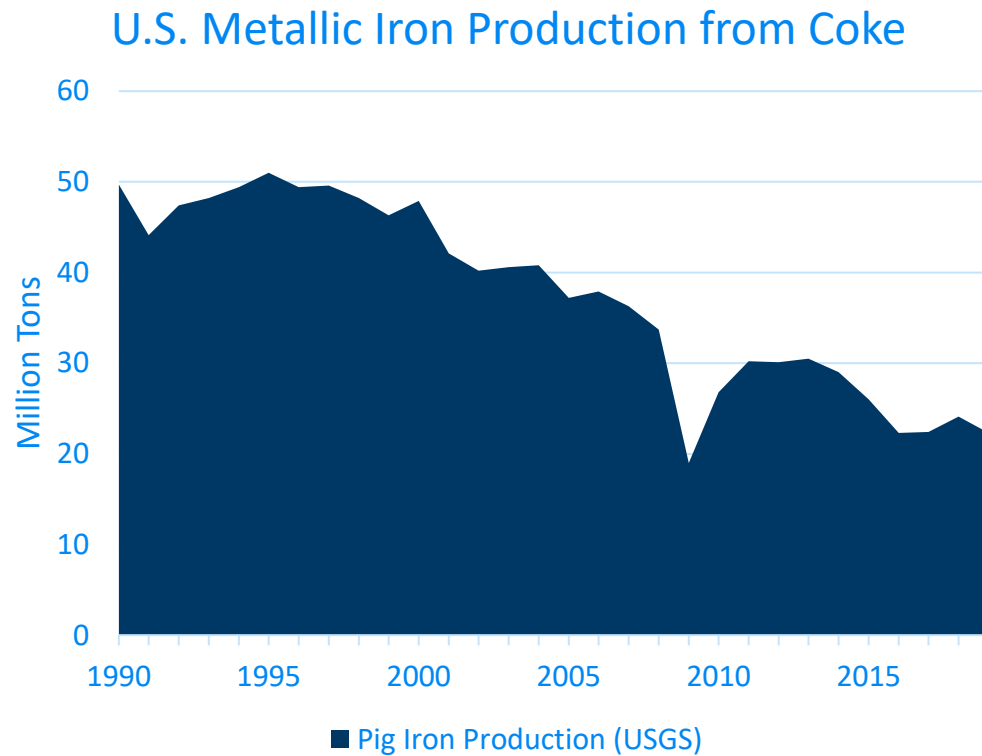
- Actions companies and countries are taking to address climate change
- Decarbonizing steel making
- Carbon sequestration
- United States identification and sourcing of “Critical Minerals”
- Increasing mineral needs for electrification

Iron ore is converted into steel at blast furnaces



Converting Iron Ore - Fe_2O_3 into Steel – Metallic Fe

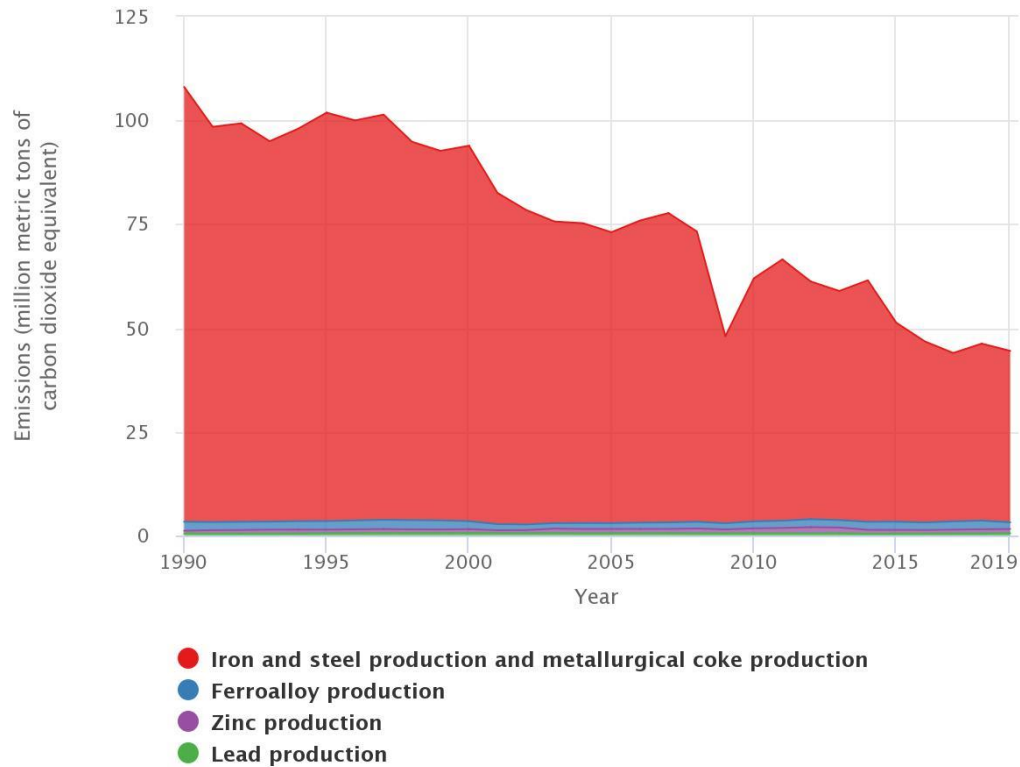
Metallic iron is produced in blast furnaces by combining iron ore (Fe_2O_3) and coke (C) in a blast furnace



Source: USGS Mineral Commodity Summaries -- pig iron production and iron ore consumption

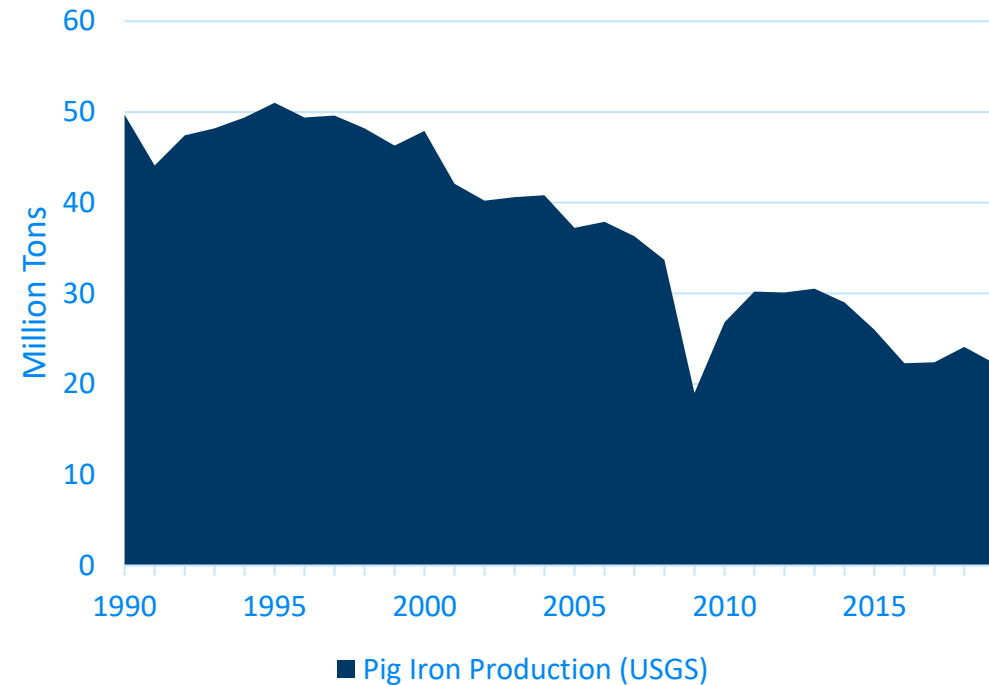
USA emits about two tons of greenhouse gasses for every ton of hot iron produced from blast furnaces

U.S. Greenhouse Gas Emissions from Metal Production, by Subcategory, 1990-2019



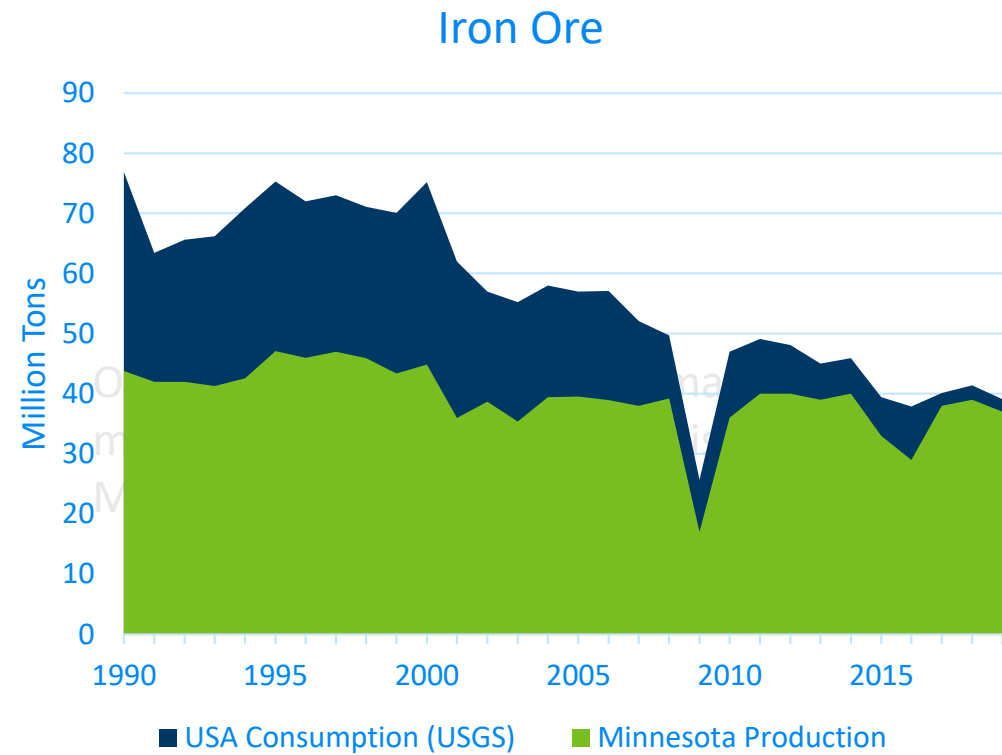
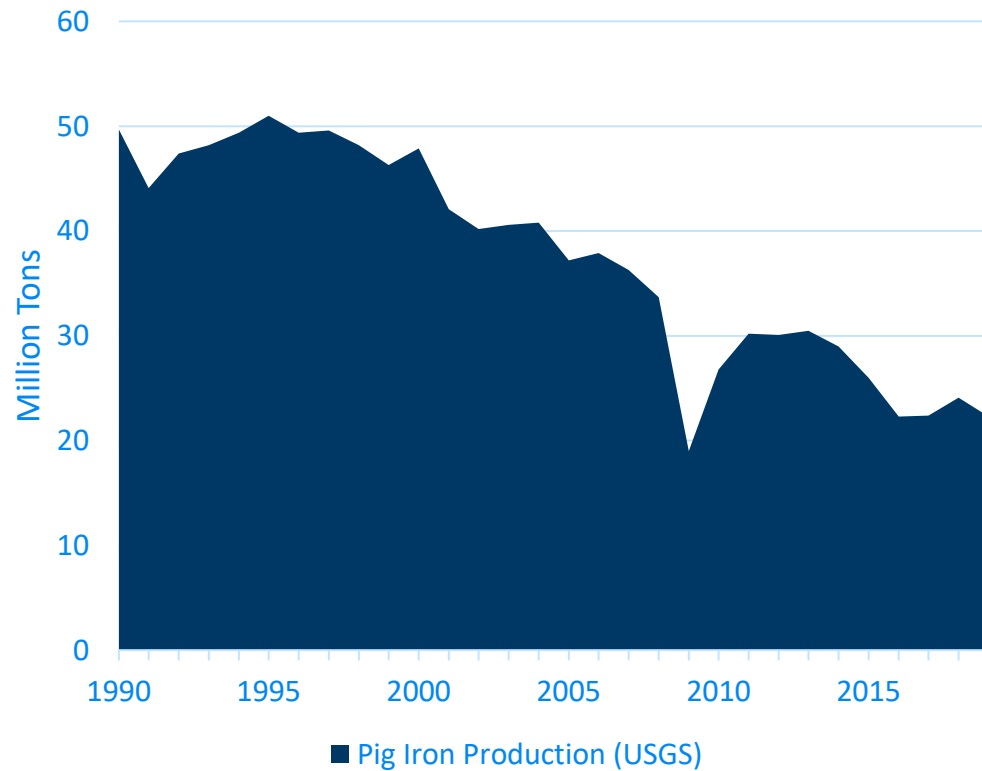
Source: U.S. EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019.
<https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

U.S. Blast Furnace Iron Production



Source: USGS Mineral Commodity Summaries -- Pig Iron Production

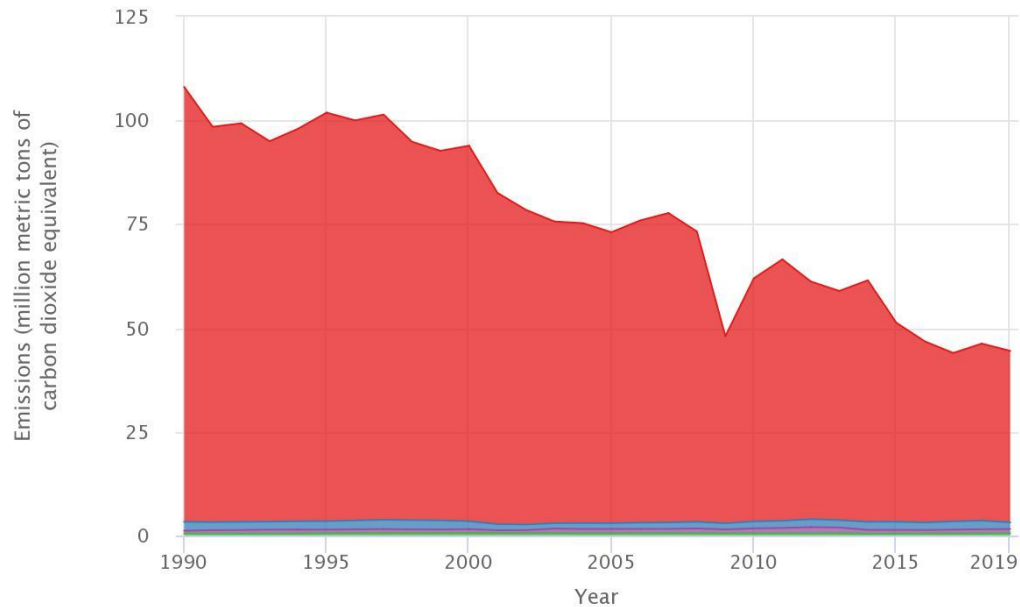
The predominant supplier of iron ore in the United States is Minnesota's Mesabi Range



Source: USGS Mineral Commodity Summaries -- pig iron production and iron ore consumption

USA has cut greenhouse gas emissions from iron and steel production largely by shifting to EAF steel production

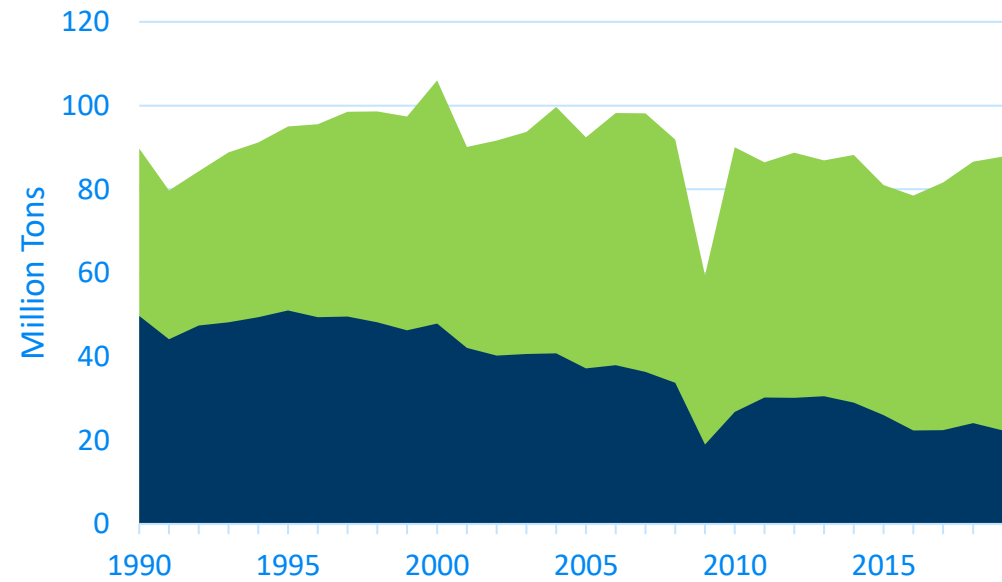
U.S. Greenhouse Gas Emissions from Metal Production, by Subcategory, 1990-2019



- Iron and steel production and metallurgical coke production
- Ferroalloy production
- Zinc production
- Lead production

Source: U.S. EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019.
<https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

USA Steel Production

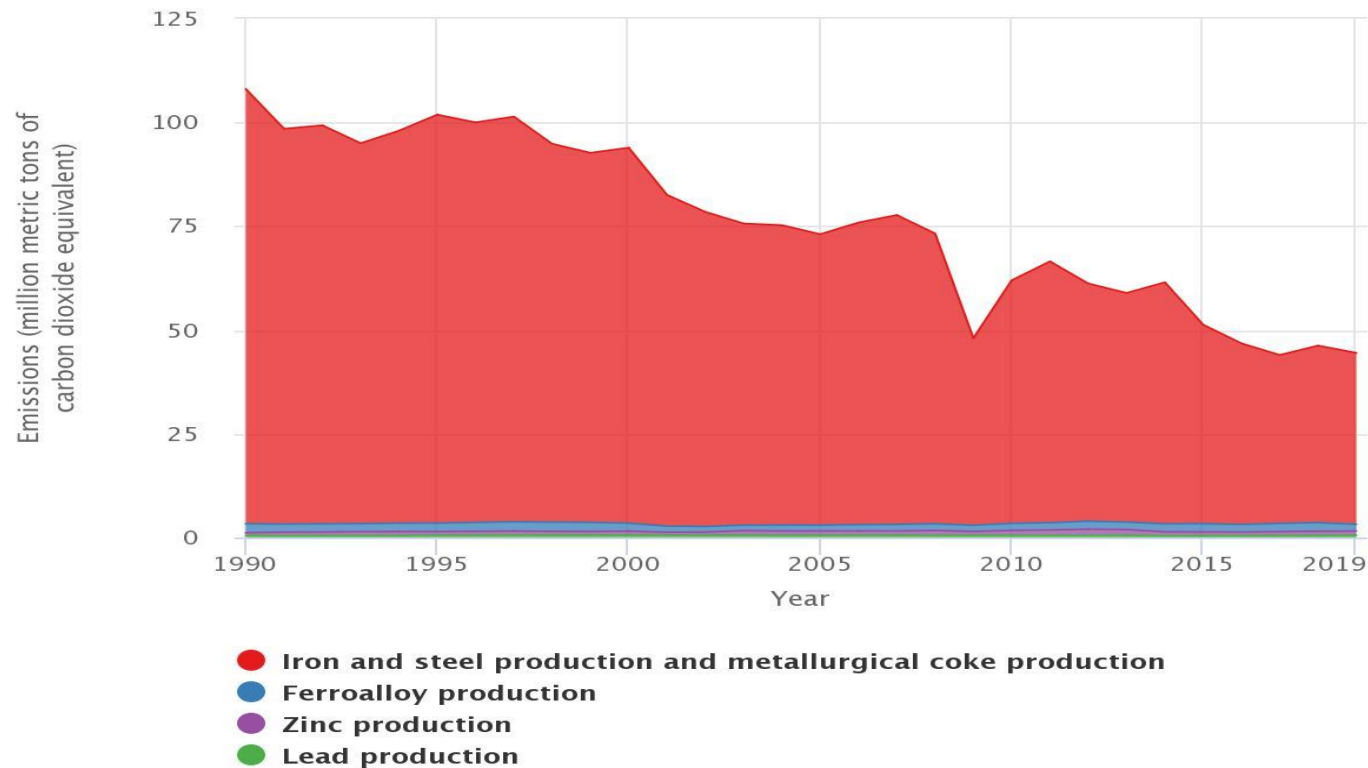


- EAF Steel Production
- USA Pig Iron Production (USGS)

Source: USGS Mineral Commodity Summaries -- Pig Iron Production

The United States is reducing greenhouse gas emissions

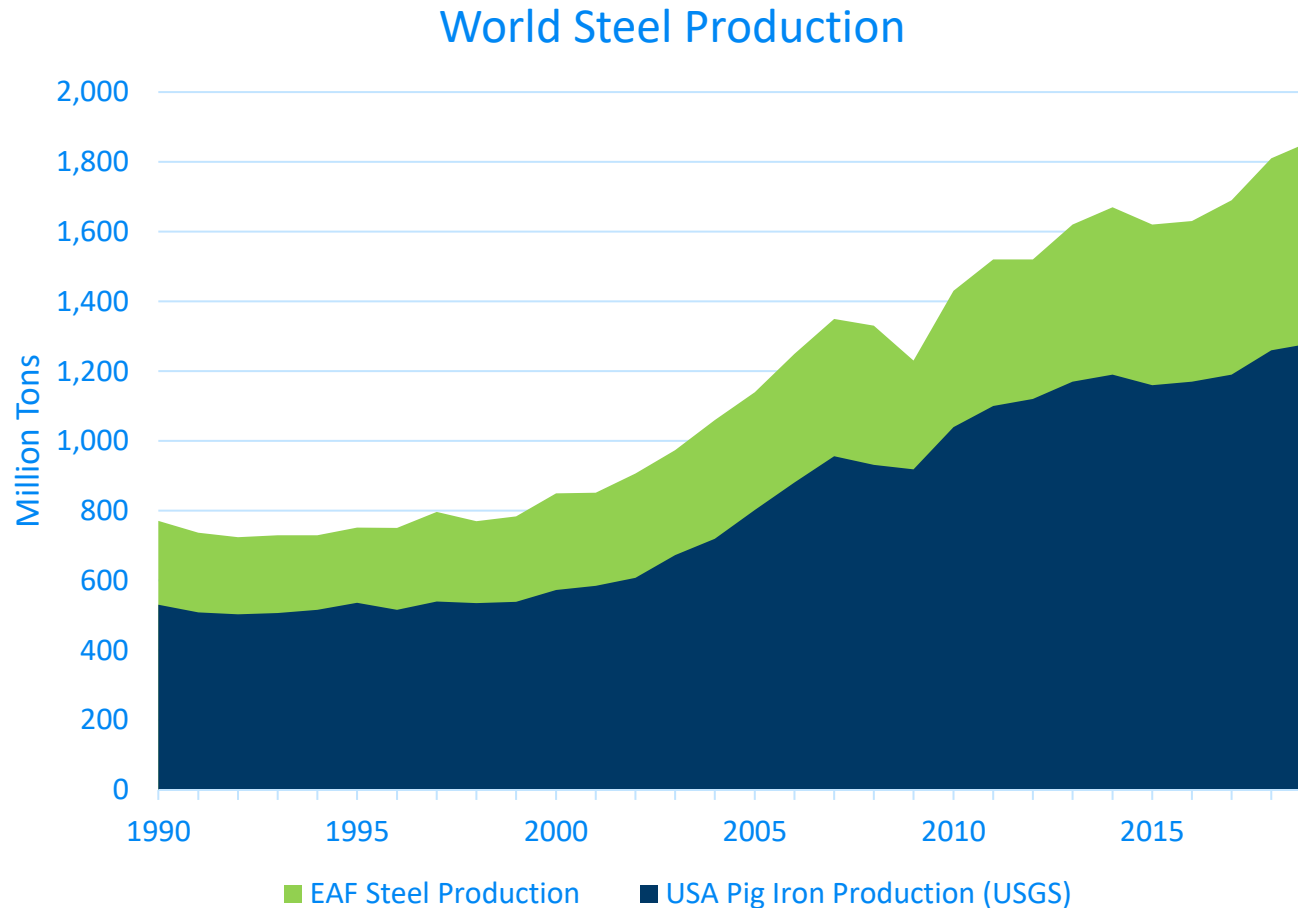
U.S. Greenhouse Gas Emissions from Metal Production, by Subcategory, 1990–2019



Source: U.S. EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2019.
<https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

- Since 1990 pig iron production has dropped in the USA and there are 50 million tons less CO₂ being emitted annually.
- That trend continues.
- Meanwhile...

World steel production has risen dramatically



World steel production has more than doubled, adding over one billion tons.

Over 700 million tons of this increase is from new pig iron production, adding 1.5 billion tons of greenhouse gas emissions.

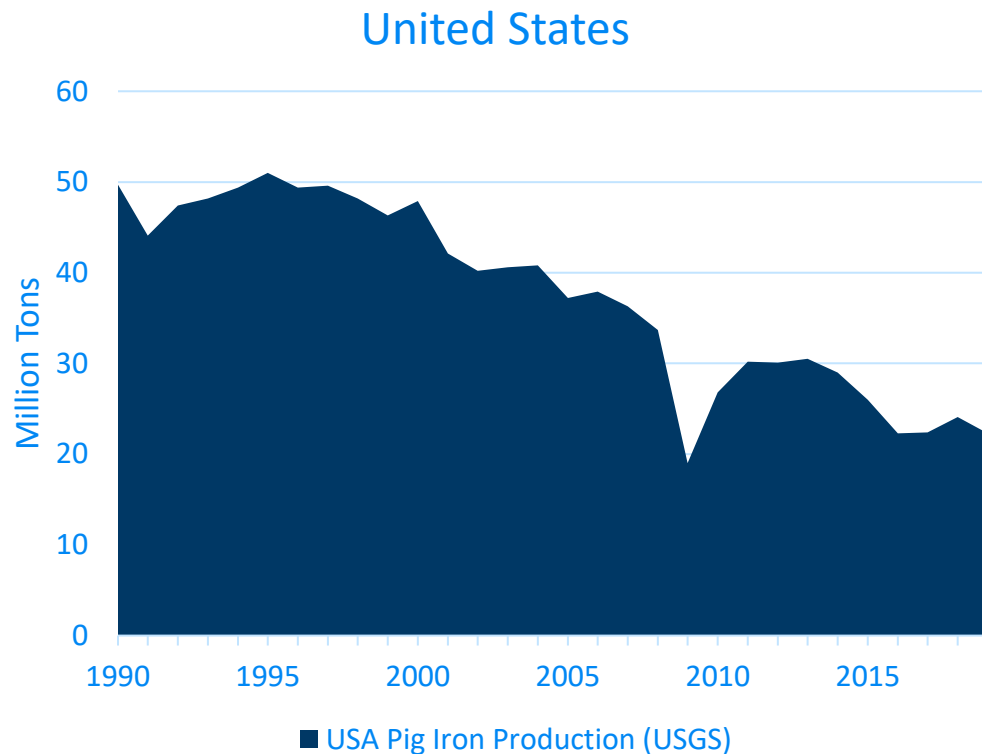
The world needs steel, and demand is growing.

Iron and steel making accounts for almost 7% of mankind's entire carbon footprint source: ArcelorMittal

Climate Action Report 1 – 2018

2018 CO₂ emissions - World 35 billion tons - 2.5 billion tons from steel production

USA blast furnace companies



Source: USGS Mineral Commodity Summaries -- pig iron production

- 1990
 - US Steel, Bethlehem, ACME, Armco, Birmingham, Geneva, Inland, LTV, Republic, Rouge, Wheeling, Weirton
- 2021
 - US Steel, Cleveland Cliffs

USA Iron Ore Mines

		Production Capacity Tons	
Cleveland Cliffs Inc.			
Hibbing Taconite (85.3%)	Minnesota	6,800,000	
Minorca	Minnesota	2,800,000	
Northshore Mining	Minnesota	6,000,000	
Tilden	Michigan	8,000,000	
United Taconite	Minnesota	<u>5,400,000</u>	
			29,000,000
United States Steel Corporation			
Hibbing Taconite (15%)	Minnesota	1,200,000	
Keewatin Taconite	Minnesota	5,400,000	
Minntac	Minnesota	<u>14,600,000</u>	
			21,200,000

Iron Ore Destinations



Customers	Tons per Year
Blast Furnace Destinations	
USA	36.2 million
Exported to Canada	<u>6.0 million</u>
	42.2 million
DRI Steelmaking	<u>3.0 million</u>
Total	45.2 million

USA Blast Furnace Locations and Iron Ore Consumption

		Production Capacity Tons	
Cleveland Cliffs Inc.			
Burns Harbor	Indiana	5,800,000	
Cleveland	Ohio	3,900,000	
Dearborn	Michigan	2,600,000	
East Chicago	Indiana	8,000,000	
Middletown	Ohio	<u>2,900,000</u>	
			23,200,000
United States Steel Corporation			
Braddock	Pennsylvania	1,300,000	
Ecorse	Michigan	2,500,000	
Gary	Indiana	6,500,000	
Granite City	Illinois	<u>2,600,000</u>	
			12,900,000

CLEVELAND-CLIFFS PLANS TO REDUCE GREENHOUSE GAS EMISSIONS 25% BY 2030



- **Strategy based on executing the following five strategic priorities:**
 - Developing domestically sourced, high quality iron ore feedstock and utilizing natural gas in the production of hot briquetted iron (HBI);
 - Implementing energy efficiency and clean energy projects;
 - Investing in the development of carbon capture technology;
 - Enhancing our GHG emissions transparency and sustainability focus; and
 - Supporting public policies that facilitate GHG reduction in the domestic steel industry.

United States Steel Corporation Announces Goal to Achieve Carbon Neutrality by 2050



- To achieve its net-zero goal for 2050, U. S. Steel expects to:
 - leverage its growing fleet of electric arc furnaces (EAF) coupled with,
 - other technologies such as:
 - direct reduced iron,
 - carbon-free energy sources,
 - and carbon capture, sequestration, and utilization.
- Achievement of the goal also depends on public-private collaboration across industries and global stakeholders.

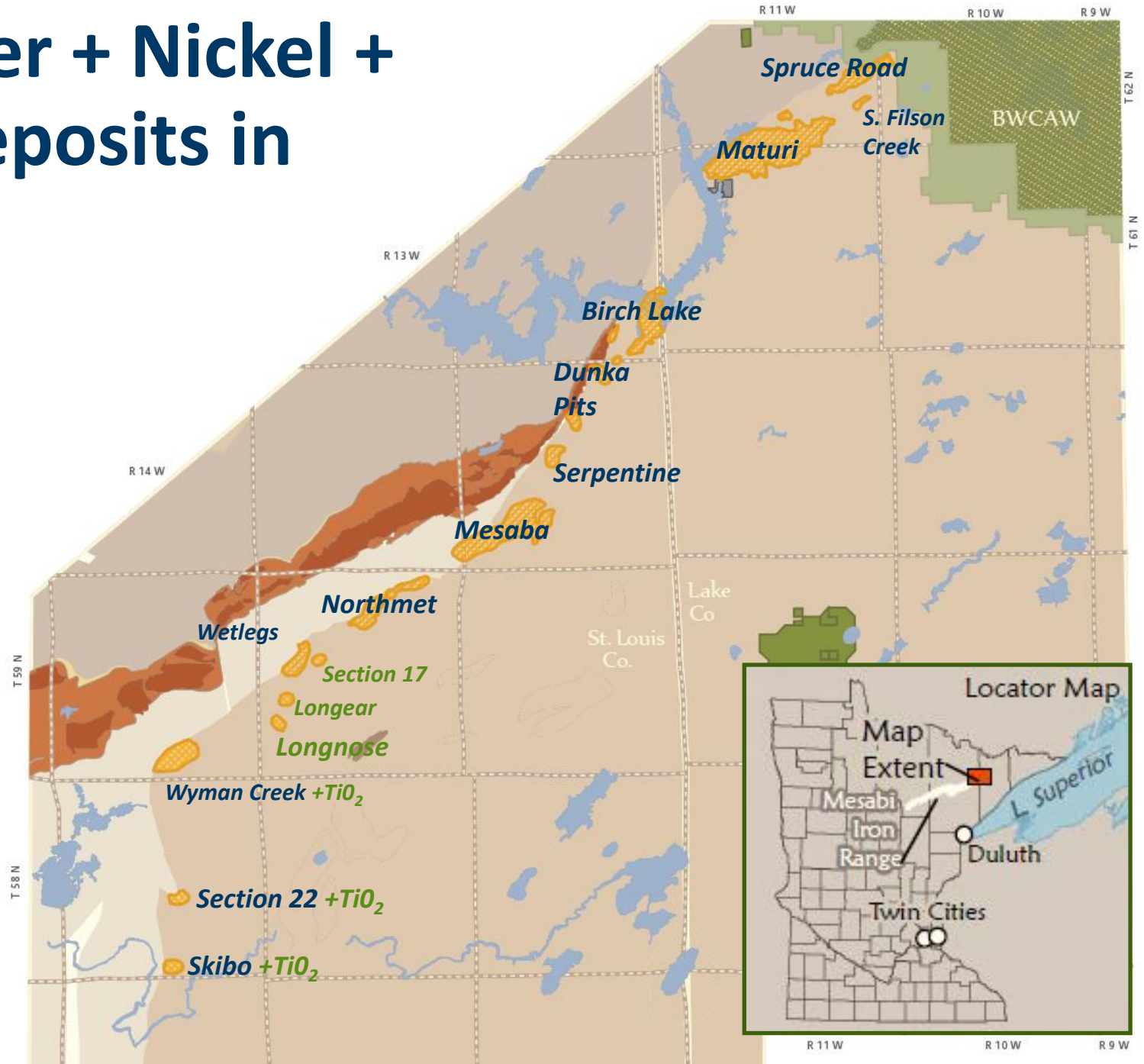
Distribution of Copper + Nickel + PGE and Titanium Deposits in Minnesota

▶ Cu+Ni+PGM Deposits

- ▶ Spruce Road
- ▶ South Filson Creek
- ▶ Maturi
- ▶ Birch Lake
- ▶ Dunka Pit
- ▶ Serpentine
- ▶ Mesaba
- ▶ Northmet
- ▶ Wetlegs
- ▶ Wyman Creek
- ▶ Section 22
- ▶ Skibo

▶ TiO₂ Deposits

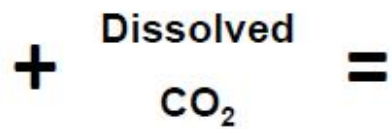
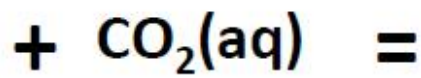
- ▶ Section 17
- ▶ Longear
- ▶ Longnose
- ▶ Wyman Creek
- ▶ Section 22
- ▶ Skibo



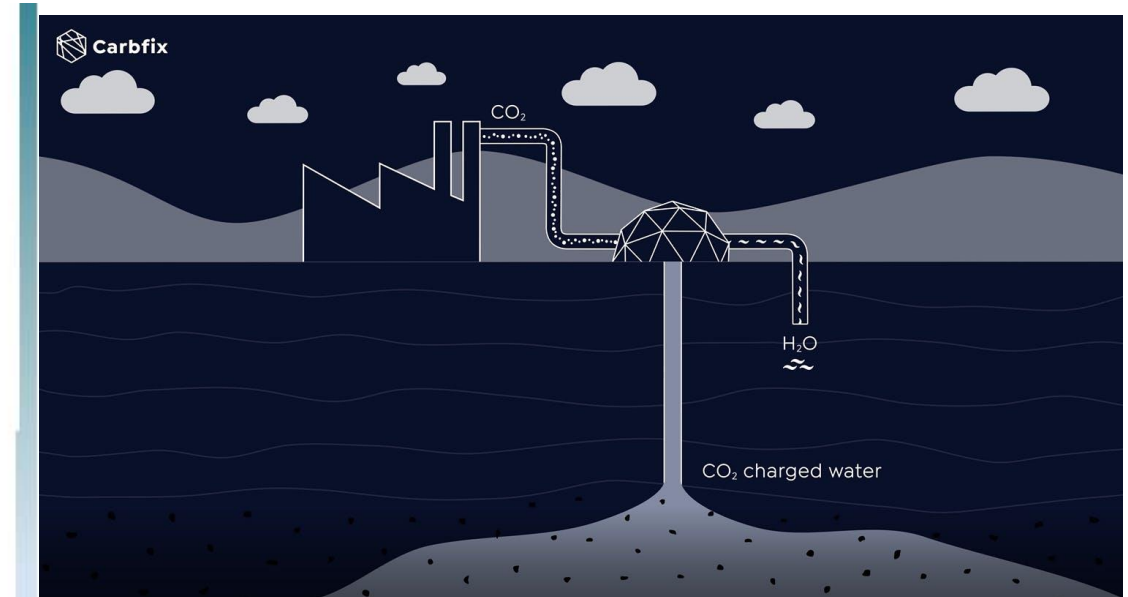
Carbon Sequestration



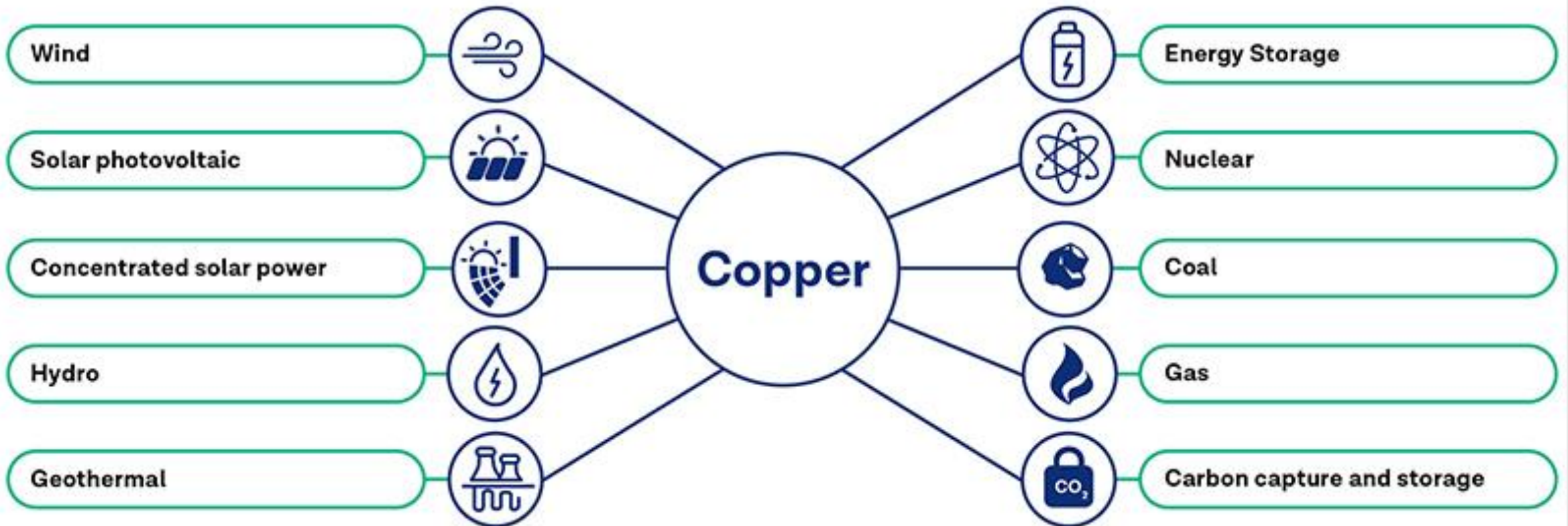
Calcium -
Magnesium
Silicate Rock



(Ca, Mg, Fe)
Carbonate

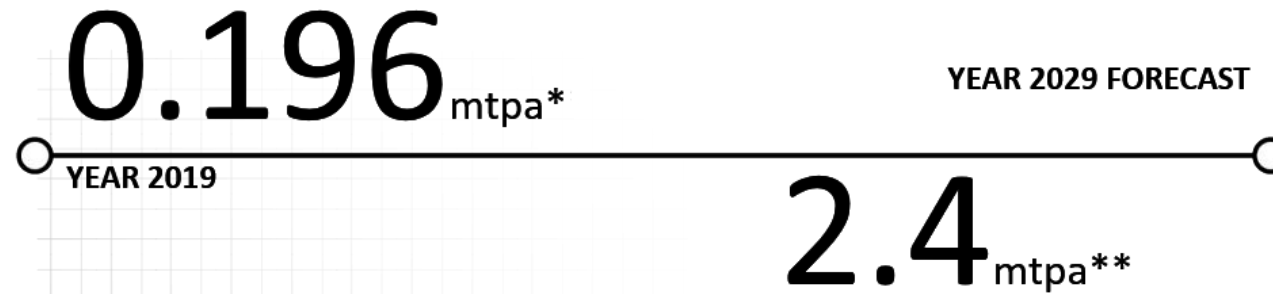


Energy generation technologies that require copper



Source: World Bank

12 fold growth in nickel for the electric vehicle market



That is an additional **1,260ktpa** of nickel for batteries that may be needed



* Lithium-Ion Battery Megafactory Assessment p7, January 2020, Benchmark Minerals

** Norilsk Nickel 2019 Financial Presentaion, February 26, 2020, page 14 - 2018 Global Ni Production



- **Researchers eye manganese as key to safer, cheaper lithium-ion batteries**

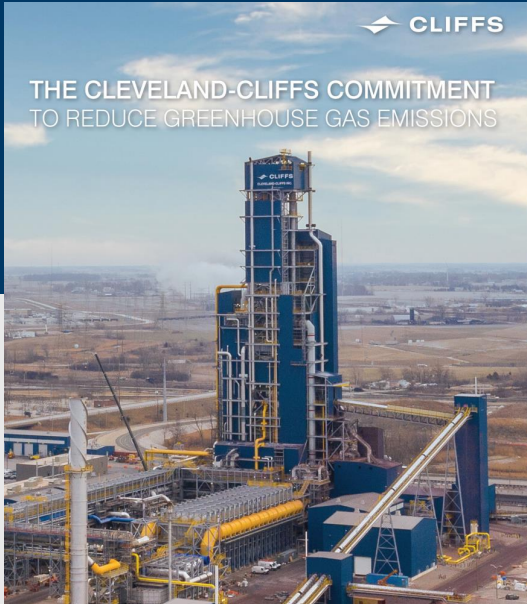


How Do We Ensure Adequate Supplies of Manganese for the Future? Although the total reserves of the world are adequate to meet foreseeable demand, there has long been a concern in the United States, because of its total import reliance for manganese ore, for a continued manganese supply in light of possible political or military disruptions of production or supply chains. Although **there are large resources of manganese-enriched rock in the United States, mostly in Maine and Minnesota**

Conclusion

- State mineral receipts are at all time highs.
- The state School Trust is benefitting which benefits all Minnesotans.
- We are following events that will effect mineral revenues from iron ore
- Reducing greenhouse gas emissions is both a threat and opportunity for our largest revenue source.
- We continue to work to diversify mineral revenue for the School Trust.





Thank You!



Pete Clevenstine

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~~218-231-8443~~ 218-969-0910