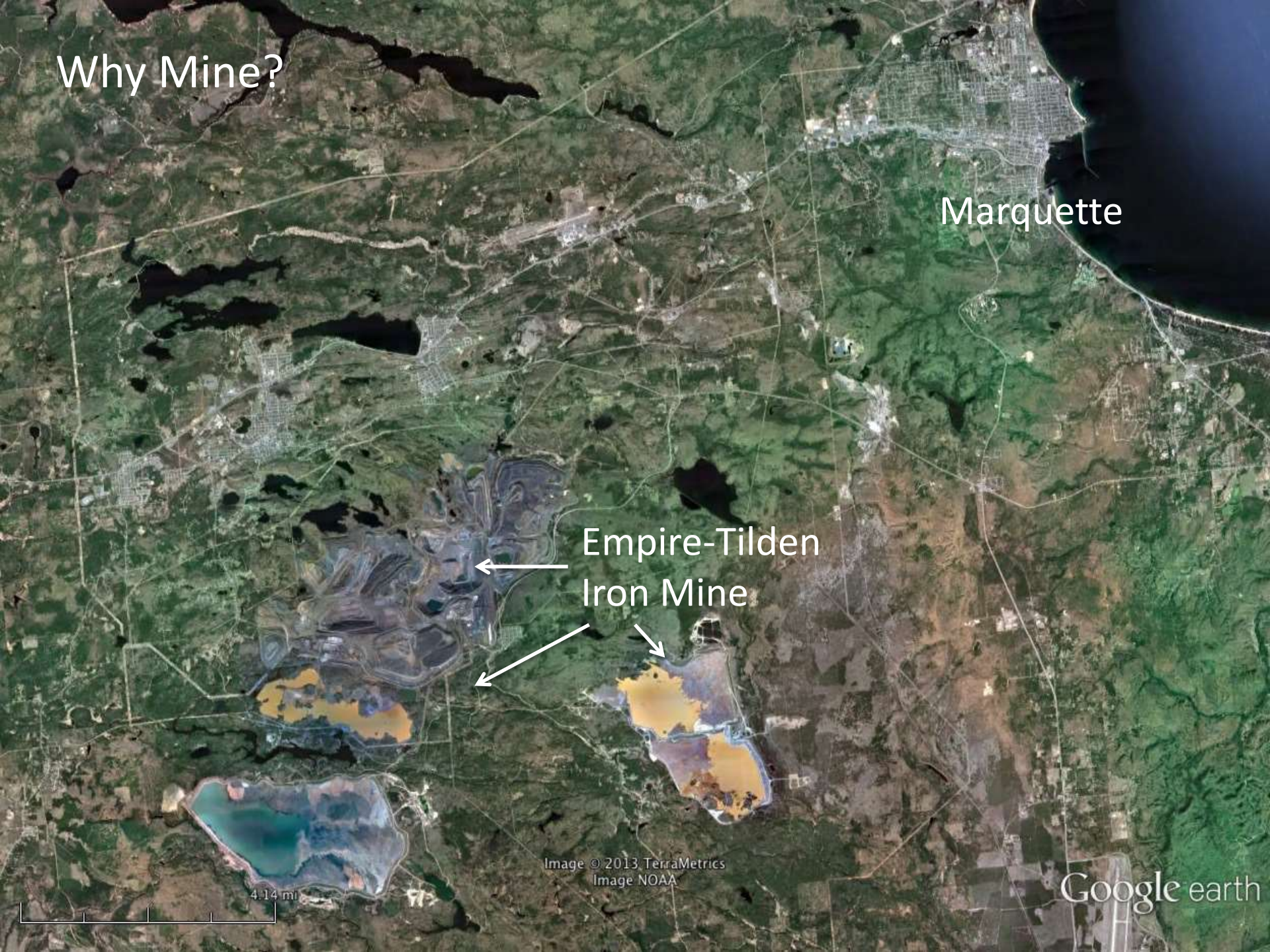
Mining in the Great Lakes-St. Lawrence Region

Steve Kesler
Department of Earth and Environmental Sciences
University of Michigan
Ann Arbor, MI

1) Why Mine?

2) Role of Mining in the
Great Lakes-St. Lawrence Region


Why Mine?
Marquette
Empire-Tilden
Iron Mine
Image © 2013 TerraMetrics
Image NOAA
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Google earth

Why Mine?

Why Mine?


Why Mine?
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Why Mine?

Why Mine?

Why Mine?

Every year— 37,687 pounds of new minerals must be provided for every person in the United States to make the things we use every day

8,343 lbs. **Stone** used to make roads, buildings, bridges, landscaping, and for numerous chemical and construction uses

5,937 lbs. **Sand & Gravel** used to make concrete, asphalt, roads, blocks & bricks

530 lbs. **Cement** used to make roads, sidewalks, bridges, buildings, schools and houses

187 lbs. **Iron Ore** used to make steel— buildings; cars, trucks, planes & trains; other construction; containers

409 lbs. **Salt** used in various chemicals; highway deicing; food & agriculture

195 lbs. **Phosphate Rock** used to make fertilizers to grow food; and as animal feed supplements

156 lbs. **Clays** used to make floor & wall tile; dinnerware; kitty litter; bricks & cement; paper

52 lbs. **Aluminum (Bauxite)** used to make buildings, beverage containers, autos, and airplanes

12 lbs. **Copper** used in buildings; electrical & electronic parts; plumbing; transportation

10 lbs. **Lead** 75% used for transportation— batteries, electrical, communications and TV screens

7 lbs. **Zinc** used to make metals rust resistant, various metals & alloys, paint, rubber, skin creams, health care and nutrition

44 lbs. **Soda Ash** used to make all kinds of glass; in powdered detergents; medicines; as a food additive; photography; water treatment

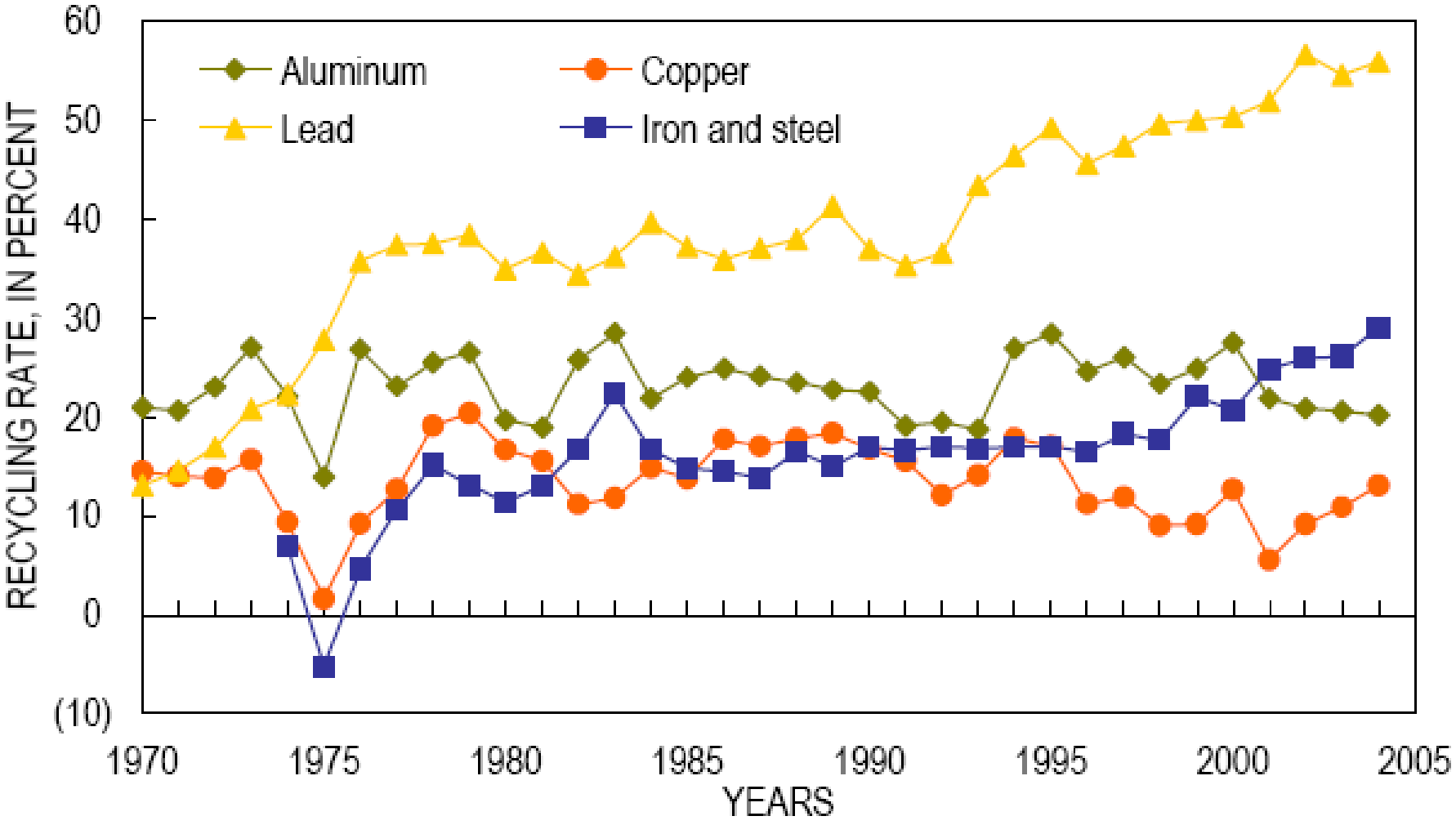
3 lbs. **Manganese** used to make almost all steels for construction, machinery and transportation

403 lbs. **Other Nonmetals** used glass, chemicals, soaps, paper, computers, cell phones, etc.

19 lbs. **Other Metals** uses similar to nonmetals; but also electronics, TV & video equipment, recreation equipment, etc.

Why Mine? – Why don't we just recycle?

Recycling percentage is too low.



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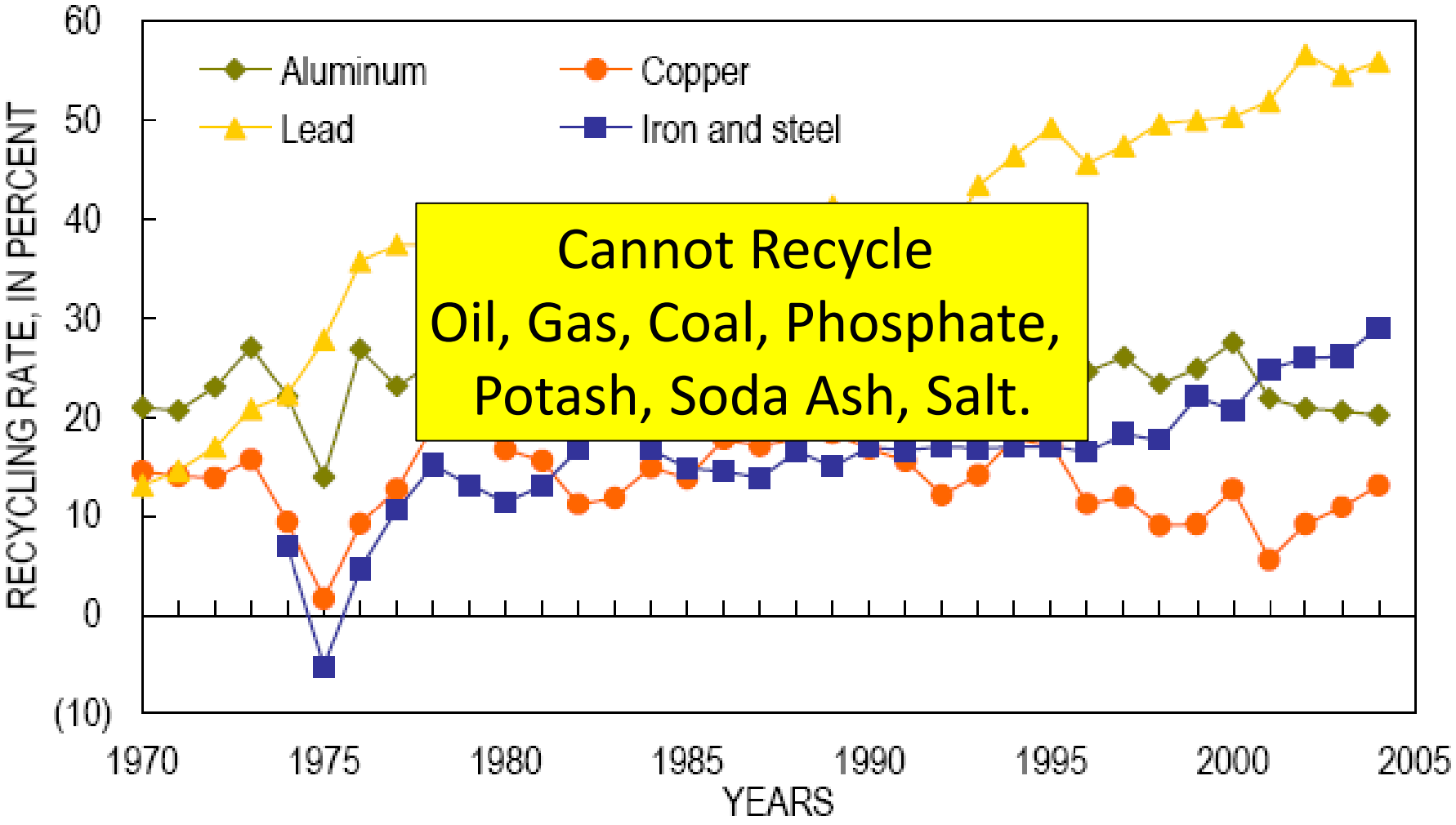
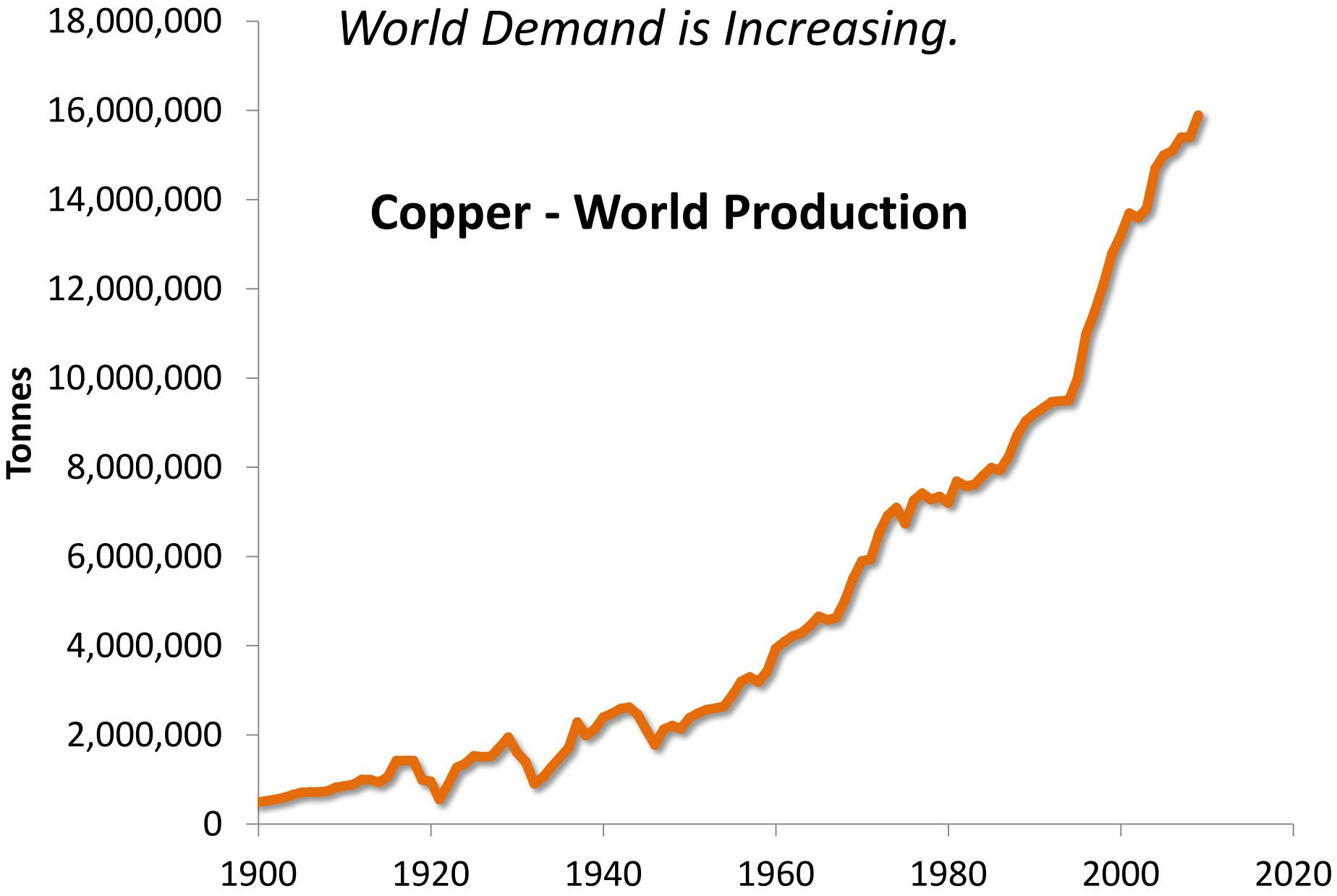
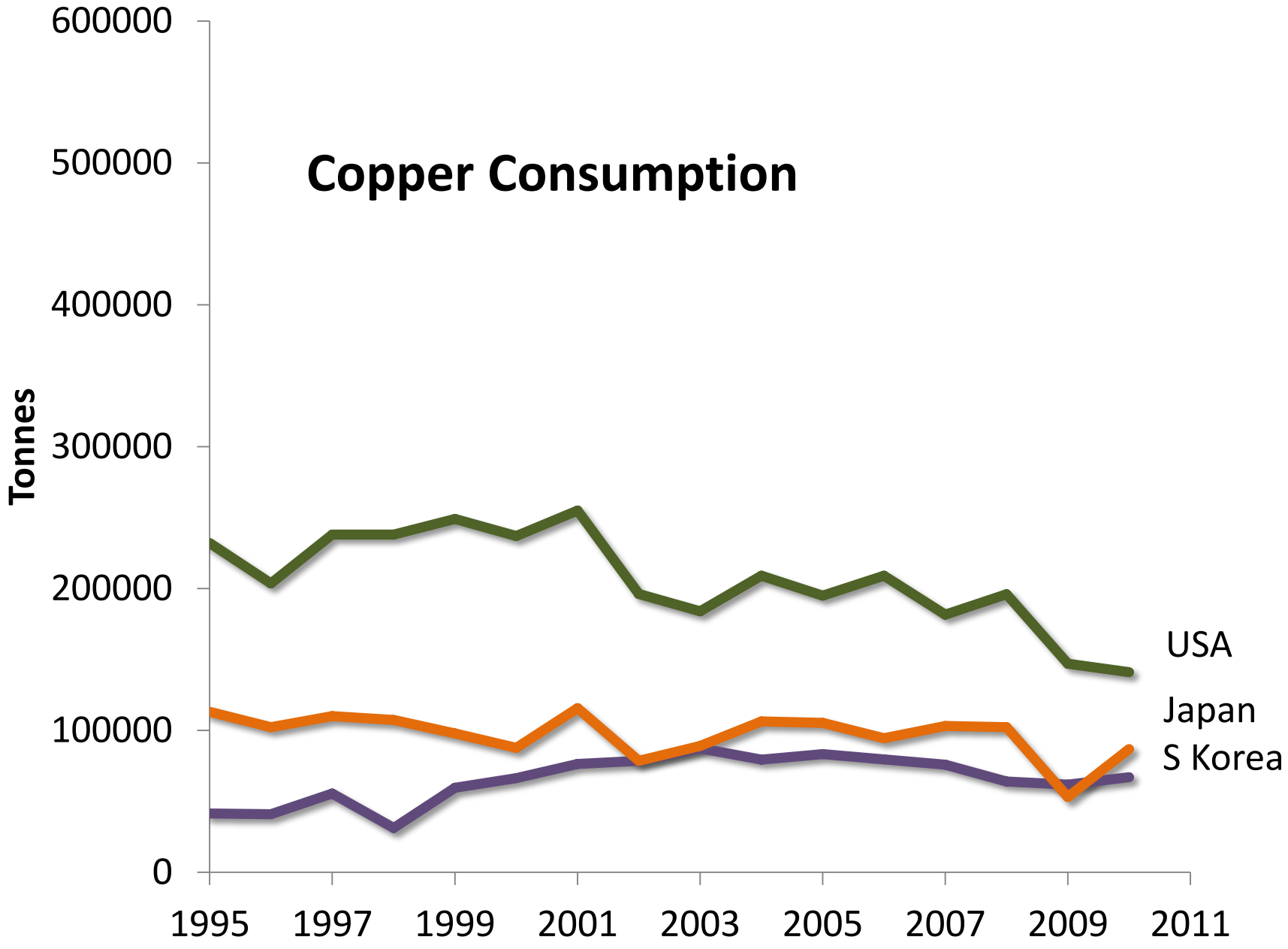


Why Mine? – Why don't we just recycle?

World Demand is Increasing.



Why Mine? – Developed countries are **decreasing** demand.



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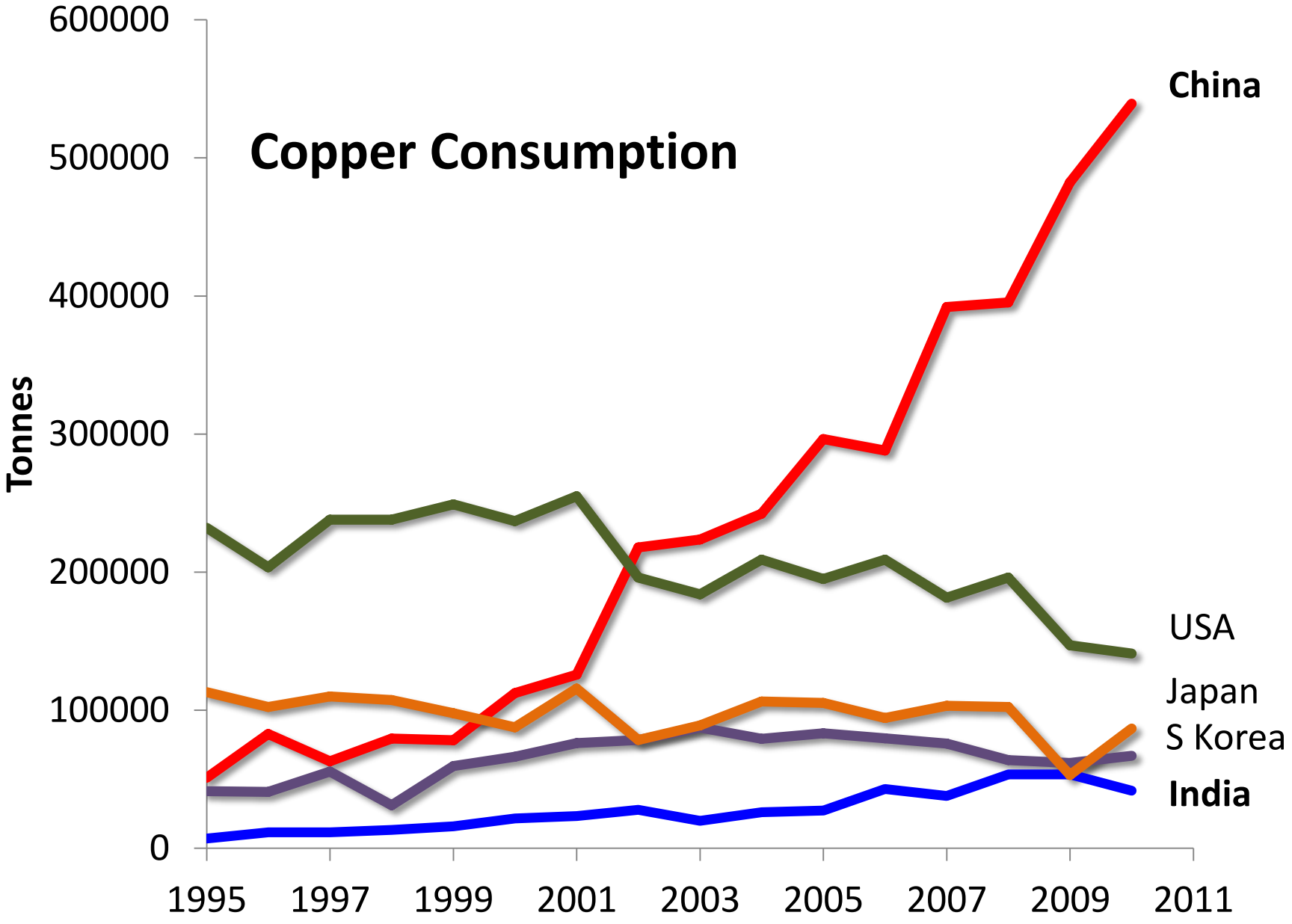
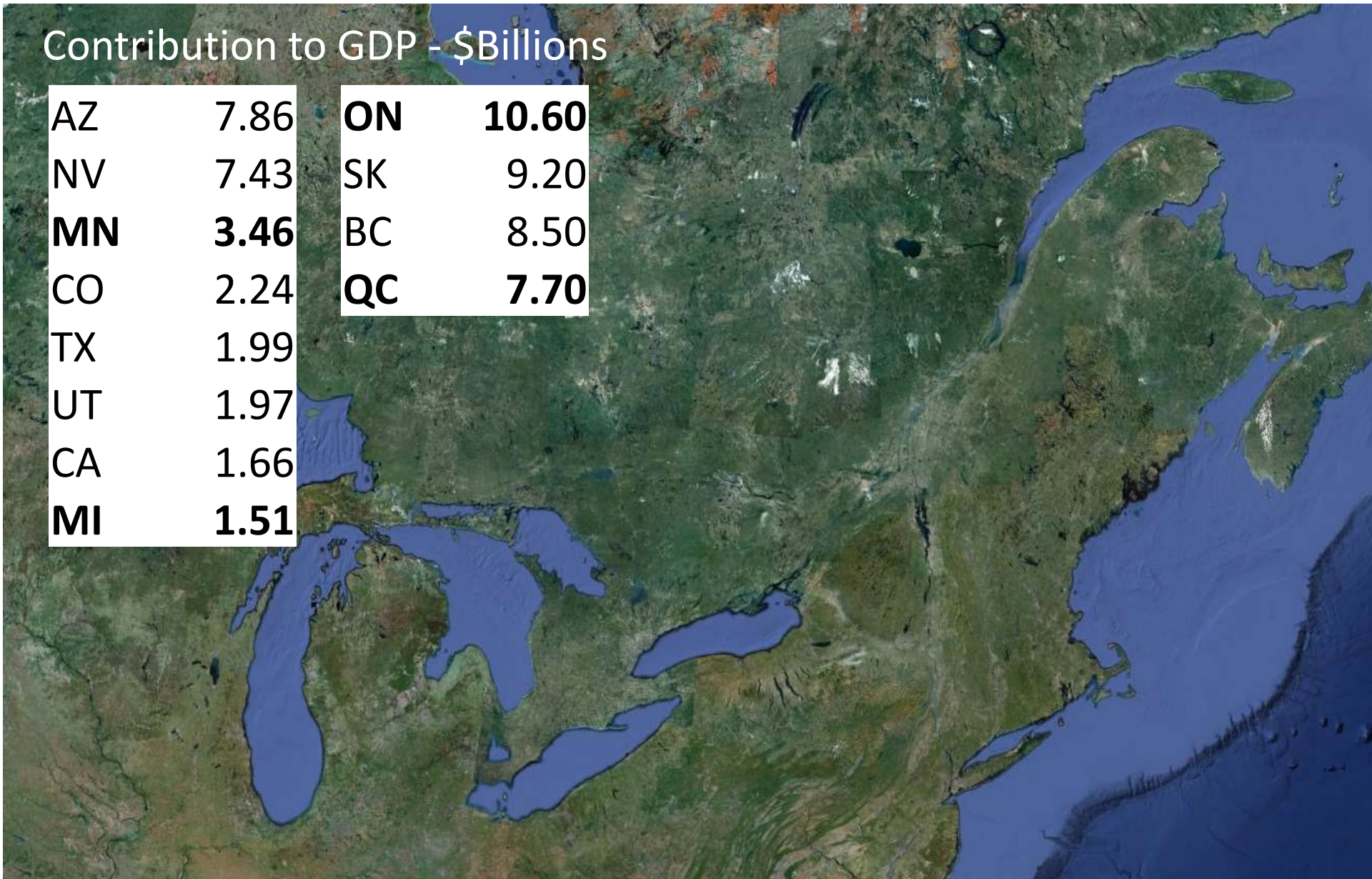


Why Mine? – Where to mine? AND – must be mined where they are located.

Role of Mining and Related Activity in GLSL Region



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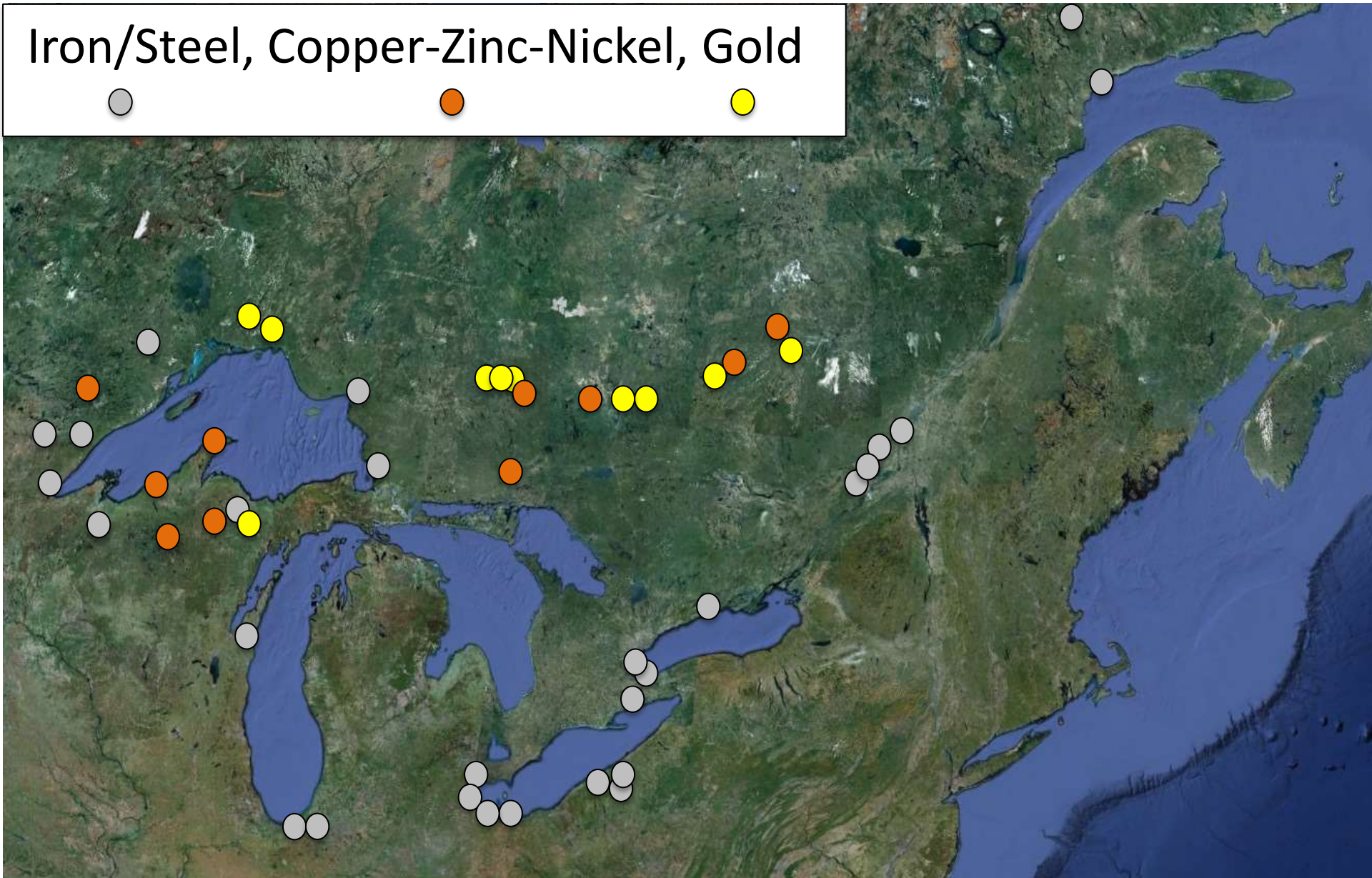

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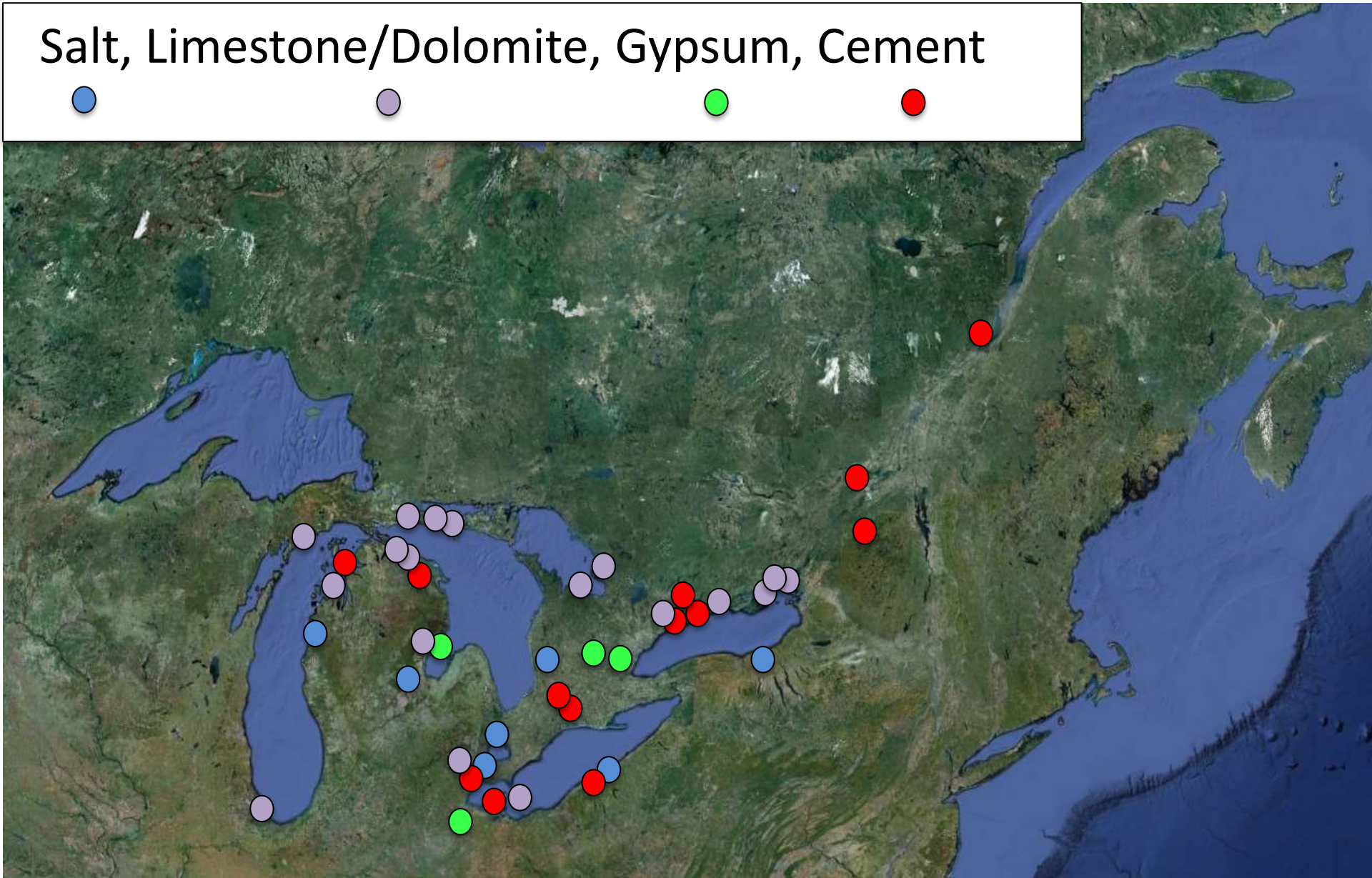
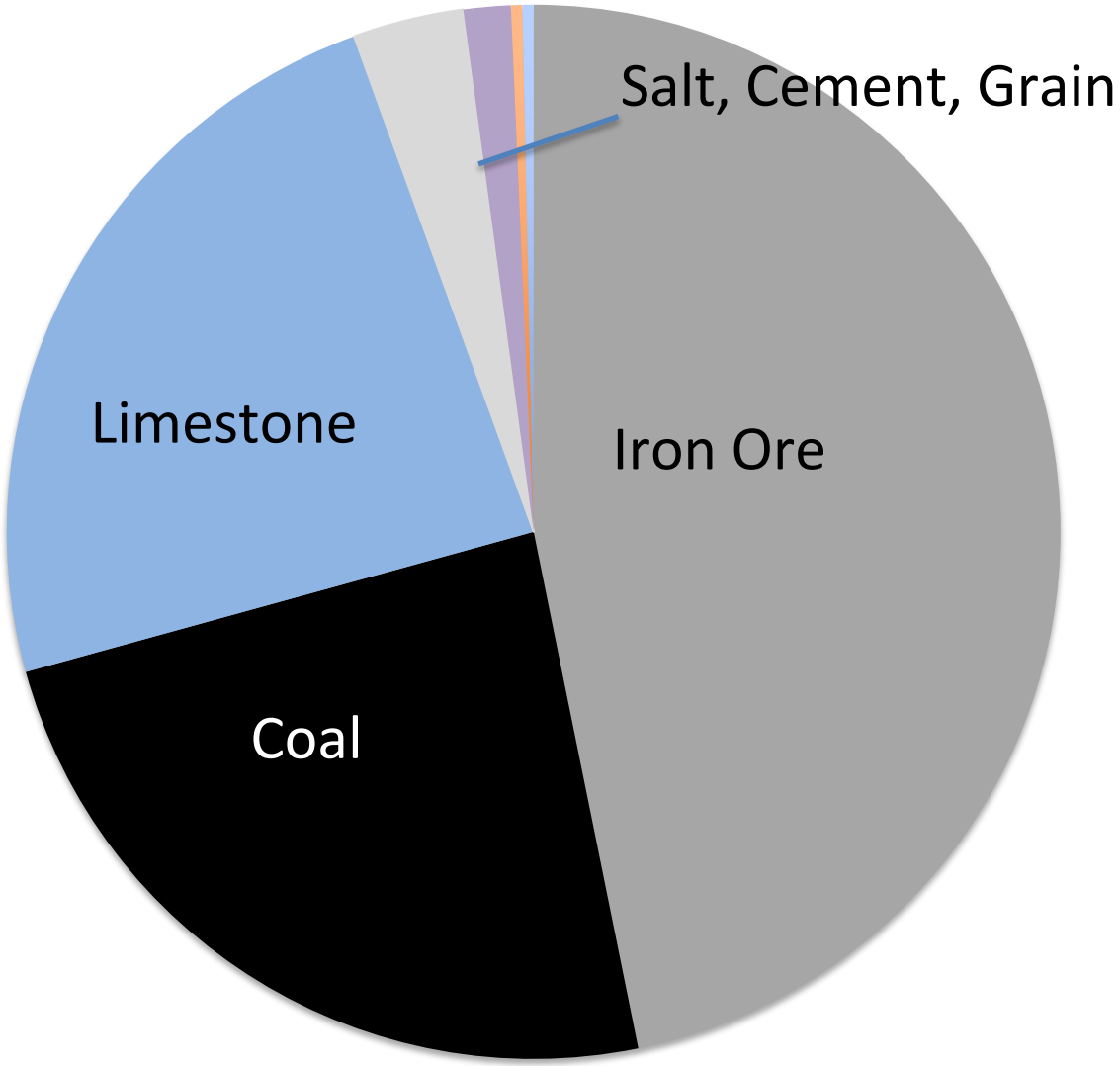


Role of Mining – Transport of Products

Tonnage of Great Lakes Shipments

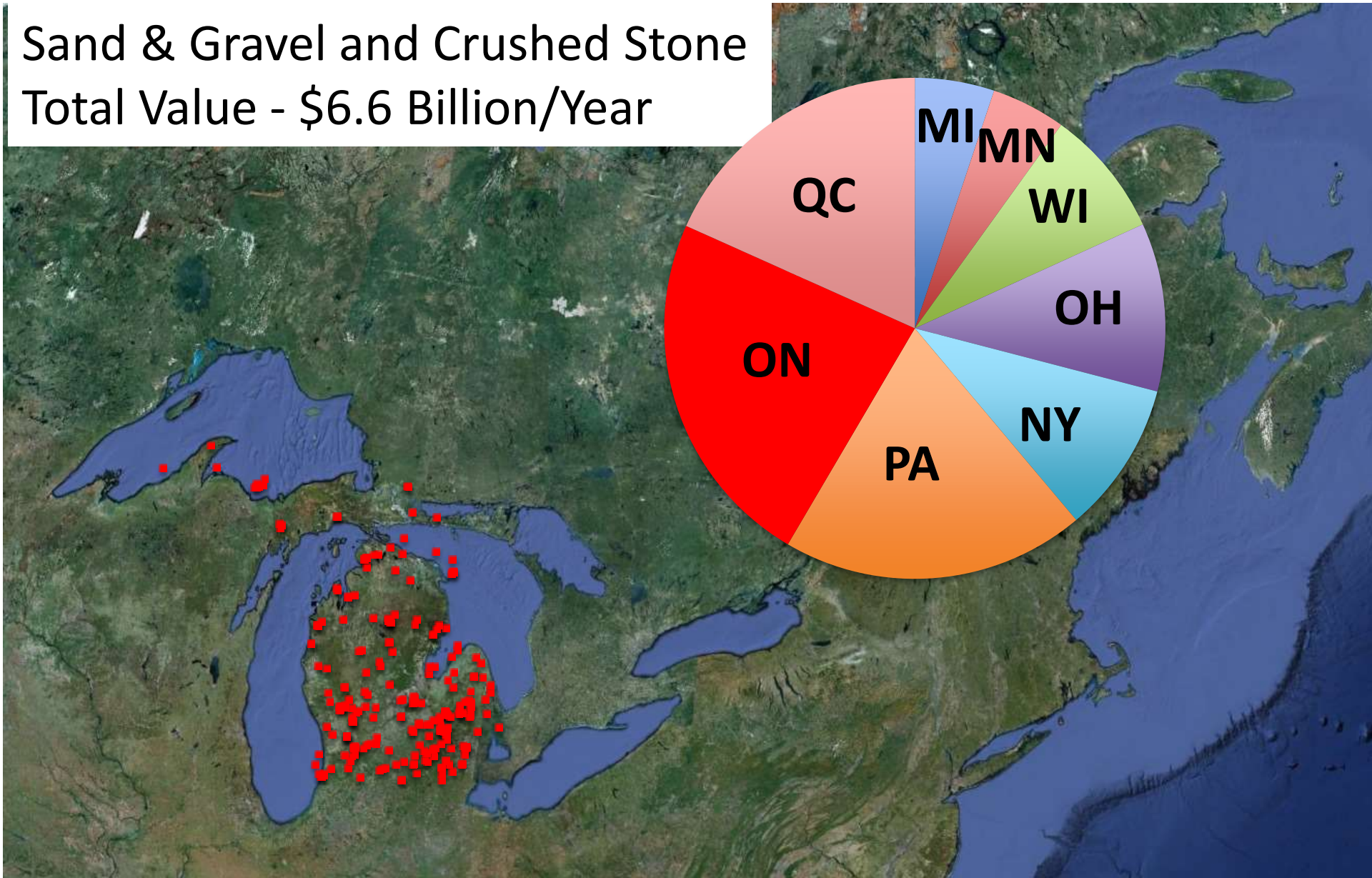


Role of Mining – Transport of Products

The Walter J. McCarthy, Jr. hauls low-sulfur coal that is mined in Wyoming from a terminal in Superior, WI to a power plant in St. Clair, MI

Role of Mining and Related Activity in GLSL Region

Sand & Gravel and Crushed Stone
Total Value - $6.6 Billion/Year



Role of Mining – NIMBY