

Wisconsin Rail Plan 2050

WisDOT Freight Railroad Conference

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In this presentation

- Background on the development of the Wisconsin Rail Plan 2050
- Highlights of considerations since the last Rail Plan
- Examples of Updated freight rail commodity flow data in the draft Rail Plan
- Highlights of the freight forecast in the draft Rail Plan



Background on the development of the Wisconsin Rail Plan 2050



Draft Wisconsin Rail Plan 2050

- Wisconsin's original rail plan: Wisconsin Rail Plan 2030 (2014)
- Being replaced by the Wisconsin Rail Plan 2050
 - Draft Rail Plan will be available for comment for 30 days
 - Comments considered in revising the draft Rail Plan to create a draft final Rail Plan
 - Draft final Rail Plan 45-day comment period
- Rail plan covers rail safety; environmental considerations; equity; freight rail; commuter rail; intercity passenger rail



Need to refresh the Rail Plan with

- Inclusions from FRA state rail plan guidance from late 2013
- Reviewed and revised policies to reflect current conditions
- Freight commodity flow statistics
- Passenger and freight rail data trends
- Rail system conditions
- Future rail-related improvements or plans (project listing tables)

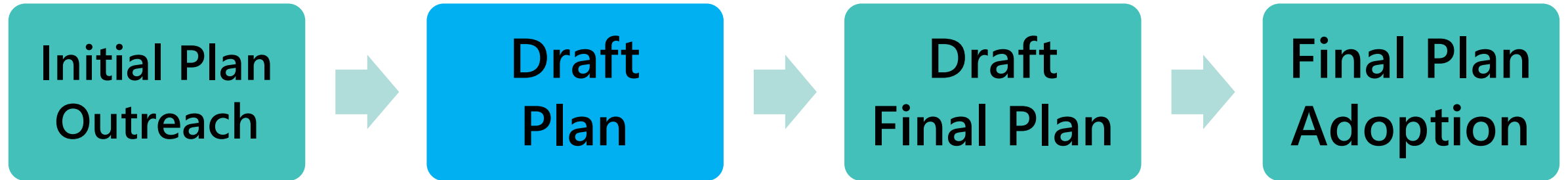


Supports Connect 2050 goals

- Goal 1. Pursue sustainable long-term transportation funding
- Goal 2. Focus on partnerships
- Goal 3. Pursue continuous improvement and expand data-driven decision-making processes
- Goal 4. Increase options, connections, and mobility for people and goods
- Goal 5. Maximize technology benefits
- Goal 6. Maximize transportation safety
- Goal 7. Maximize transportation system resiliency and reliability
- Goal 8. Balance transportation needs with those of the natural environment and socioeconomic, historic, and cultural resources



Major stages of the Rail Plan and outreach



Highlights of considerations since the last rail plan



Safety and security changes implemented since last Rail Plan

- Transportation safety continues to be one of WisDOT's highest priorities
- Rail safety is always important for drivers, bicyclists and pedestrians
- *Wisconsin Highway-railway Grade Crossing Safety Action Plan* highlights (full report on WisDOT website)
- Updated emergency management all hazards process
- References improvements to U.S. DOT rail tank car safety standards implemented after several significant fire and explosion incidents with oil rail transportation



Passenger rail changes implemented since the last Rail Plan

- More Thruway bus service to link rural areas to intercity passenger rail service - from 6 to 9 routes
- MARS platform 400-foot extension to allow for longer trains - 2013 completion
- MARS 2nd platform - will be LET in December
- Muskego Yards bypass - funding identified and dedicated; environmental documentation completed
- Twin Cities Milwaukee Chicago service implementation - in the design phase
- CTC Signalizing project – in preliminary design



Freight rail considerations since the last Rail Plan

- Northwoods rail sale and purchases
- CP/KCS merger
- Covid-19 changes to both passenger and freight movements and economic recovery
- FRIIP and FRPP updated project listing tables



Examples of Updated freight rail commodity flow data in the draft Rail Plan



Updated freight rail commodity flow data

- Rail shipments in Wisconsin (2015-2019)
- Rail shipments by type
 - Top commodities shipped within Wisconsin by tons and value (2019)
 - Top overhead commodities by tons and value (2019)
 - Top inbound commodities by tons and value (2019)
 - Top outbound commodities by tons and value (2019)
- 2050 freight forecast (2017 base year)
 - 2050 forecast: Wisconsin shipments by tons and value (2017–2050)
 - 2050 forecast: outbound and inbound rail shipments (2017–2050)



Rail shipments in Wisconsin (2015-2019)

	2015	2016	2017	2018	2019
Carloads	1,996,133	1,621,370	1,808,651	1,872,203	1,784,896
Intermodal Units	1,094,281	1,113,680	1,138,160	1,357,000	1,310,160
Total Rail Units	3,090,414	2,735,050	2,946,811	3,229,203	3,095,056
Carload Tons	190,996,257	154,587,447	174,230,316	180,379,897	170,255,236
Intermodal Tons	15,300,705	16,057,120	16,088,760	18,945,000	17,761,440
Total Rail Tons	206,296,962	170,644,567	190,319,076	199,324,897	188,016,676



Rail shipments by type – tonnage and value 2019

	Tons	Percent of Total	Value	Percent of Total
Outbound	31,633,403	17%	\$8,116,181,011	5%
Inbound	49,491,017	26%	\$14,562,737,791	8%
Within State	3,099,073	2%	\$1,217,137,707	1%
Overhead	103,793,183	55%	\$152,264,799,928	86%
Total	188,016,676	100%	\$176,160,856,437	100%



Top outbound commodities by tons and value 2019

Commodity	Tons	Percent of Total	Value	Percent of Total
Gravel or Sand	22,289,401	70%	\$1,605,908,403	20%
Grain	1,866,254	6%	\$238,373,437	3%
Nonmetal Minerals, Processed	1,038,960	3%	\$108,920,799	1%
Potassium or Sodium Compound	888,108	3%	\$308,803,488	4%
Misc. Industrial Organic Chemicals	671,400	2%	\$258,787,011	3%
Plastic Materials or Synthetic Fibers	547,320	2%	\$1,327,372,954	16%



Top inbound commodities by tons and value 2019

Commodity	Tons	Percent of Total	Value	Percent of Total
Bituminous Coal	24,015,904	49%	\$767,726,495	5%
Iron Ores	11,272,458	23%	\$838,332,688	6%
Grain	2,008,564	4%	\$350,372,633	2%
Plastic Materials or Synthetic Fibers	1,419,800	3%	\$3,443,331,376	24%



Top commodities shipped within Wisconsin by tons and value 2019

Commodity	Tons	Percent of Total	Value	Percent of Total
Grain	705,696	23%	\$75,502,427	6%
Primary Forest Materials	384,000	12%	\$60,122,245	5%
Paper	196,480	6%	\$412,334,905	34%
Plastic Materials or Synthetic Fibers	158,880	5%	\$385,319,401	32%



Top overhead commodities by tons and value 2019

Commodity	Tons	Percent of Total	Value	Percent of Total
Crude Petroleum	16,734,517	16%	\$6,642,529,760	4%
Freight of all Kinds (FAK)	12,236,640	12%	\$63,060,656,129	41%
Grain	8,000,868	8%	\$1,277,206,540	1%
Misc. Industrial Organic Chemicals	6,031,790	6%	\$2,880,175,374	2%
Potassium or Sodium Compound	5,429,566	5%	\$1,887,911,039	1%
Lumber or Dimension Stock	4,215,720	4%	\$634,374,165	0%



Highlights of the freight forecast in the draft Rail Plan



2050 freight forecast (2017 base year)

- IHS Transearch forecast for Wisconsin
- All modes of freight
- Freight tonnage is forecast to increase by 78%
- Freight value is forecast to increase by 121% by 2050
- Of all the modes of transport, rail shipping is forecast to increase the most with a 119% increase in tonnage and a 172% increase in value



Freight rail forecast results 2017-2050

- 2050 freight forecast (2017 base year)
 - 2050 forecast: Wisconsin shipments by tons and value (2017–2050)
 - 2050 forecast: outbound and inbound rail shipments (2017–2050)



Wisconsin shipments by tons and value (2017–2050)

	2017 Tons	2050 Tons	Percent Change	2017 Value (\$)	2050 Value (\$)	Percent Change
Rail	190,319,076	416,312,457	119%	151,193,523,205	411,080,974,820	172%
Truck	390,422,004	631,660,268	62%	351,521,900,609	699,092,627,386	99%
Water	27,223,311	37,231,836	37%	3,065,605,053	4,691,556,369	53%
Air	102,357	209,192	104%	10,131,564,592	26,192,701,877	159%
Other	152,011	191,382	26%	56,640,444	124,867,729	120%
Total	608,218,759	1,085,605,135	78%	\$515,969,233,901	\$1,141,182,728,180	121%



Outbound and inbound freight rail shipments (2017–2050)

	Outbound			Inbound		
	2017	2050	Percent Change	2017	2050	Percent Change
Units	407,504	731,196	79%	553,115	760,656	38%
Tons	42,901,724	76,776,572	79%	56,950,144	70,272,783	23%
Value (\$)	5,840,617,445	12,116,244,422	107%	13,008,504,179	35,032,835,803	169%
	Within Wisconsin			Overhead		
	2017	2050	Percent Change	2017	2050	Percent Change
Units	35,080	57,529	64%	1,950,772	5,022,158	157%
Tons	3,000,750	4,906,731	64%	87,466,458	264,356,371	202%
Value (\$)	1,440,581,082	2,824,667,394	96%	130,903,820,499	361,107,227,201	176%

Thank You

[WisconsinDOT.gov/RailPlan2050](https://www.wisconsinDOT.gov/RailPlan2050)

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