



Washington Transportation Commission

Glen Squires, CEO, Washington Grain Commission

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PNW Wheat Export Destinations



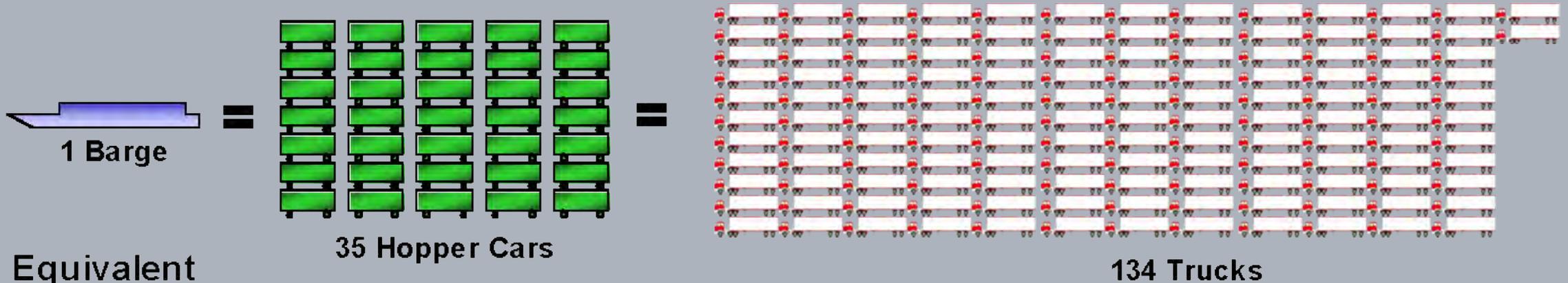
PNW Wheat Production



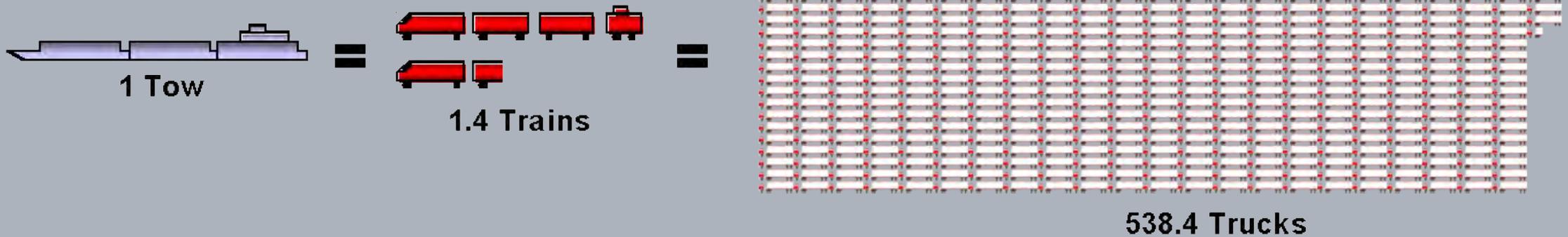
2019 PNW Wheat Production:
291.5 million bushels

Cargo Capacity Comparison

Cargo Capacity					
	Barge	4-Barge Tow	Hopper Car	100-Car Train (grain)	Semi-Truck
	3,500 Tons	14,000 Tons	100 Tons	10,000 Tons	26 Tons
	122,500 Bushels	490,000 Bushels	3,500 Bushels	350,000 Bushels	910 Bushels
	875,000 Gallons	3,500,000 Gallons	30,240 Gallons	3,024,000 Gallons	7,865 Gallons

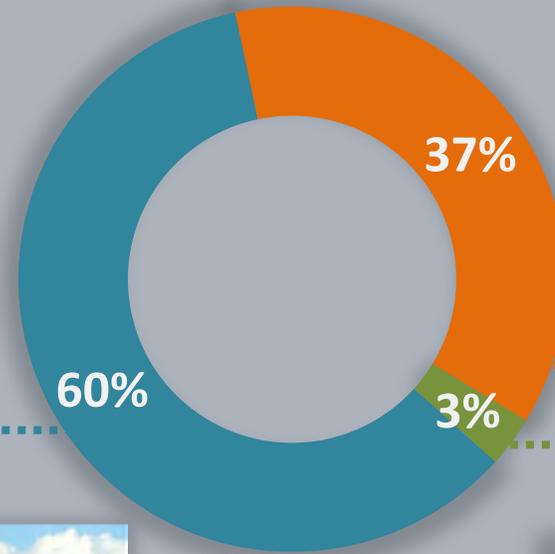


Equivalent Units



Transportation – Critical Infrastructure

- Inputs
 - Fertilizer: Barge, Truck, Rail
 - Fuel: Barge, Truck, Rail, Pipeline
 - Seed: Truck
 - Equipment: Truck Rail
- Road: Trucks
- Rivers (Snake/Columbia): Barges
- Rail: Class I; Shortline
- Ocean Freight

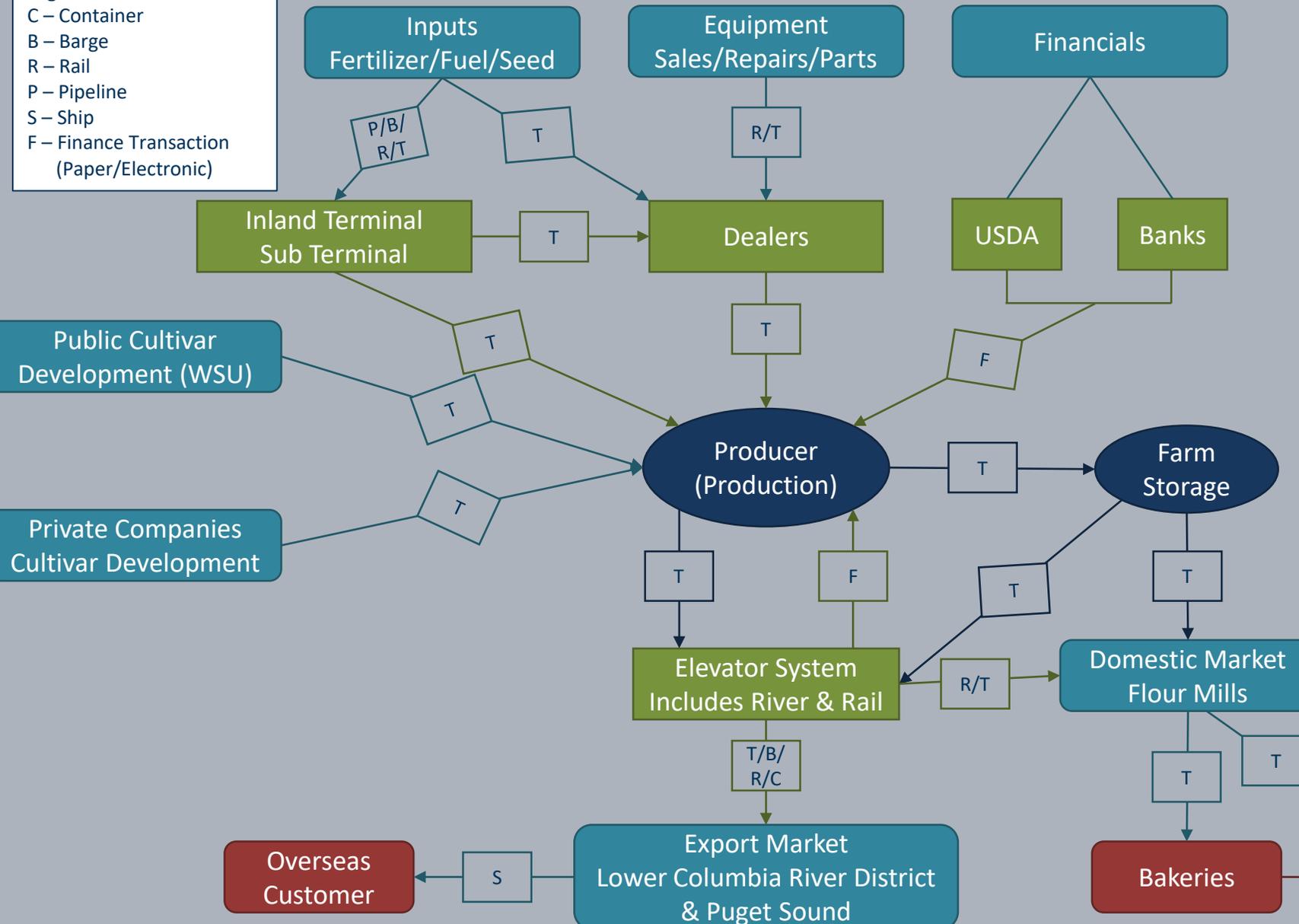


Columbia River Jetties



Washington Wheat Critical Infrastructure System

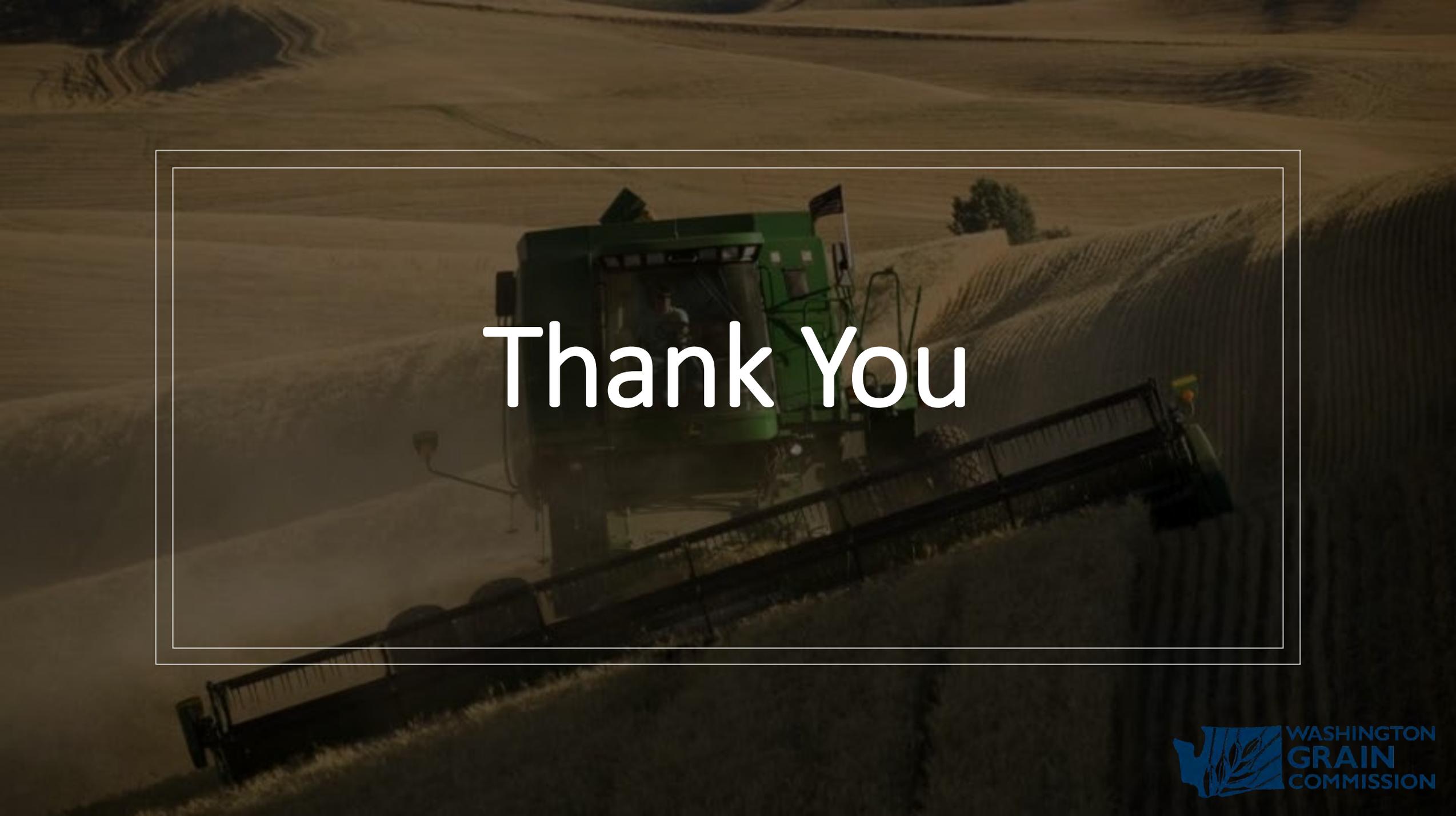
Legend:
 C – Container
 B – Barge
 R – Rail
 P – Pipeline
 S – Ship
 F – Finance Transaction
 (Paper/Electronic)



- Critical Infrastructure:**
- Roads – State/County/Port access
 - Rail – Mainline/Shortline systems
 - River – Snake/Columbia/Estuary
 - Fuel/Input Delivery + Storage System
 - Grain Handling/Storage – On-farm & commercial
 - Milling/Processing Facilities
 - Baking Facilities
 - University – Fields & Labs
 - USDA/FSA County Offices
 - Electricity Supply
 - Financial Institutions
 - Ground/Surface Water

- Specific Vulnerabilities:**
- River – Federal Snake/Columbia River System (eight dams/navigational locks); Estuary, Jetties
 - Class I Rail – Columbia Gorge, Stampede Pass, track conditions before entering WA, congestion, railcar availability, service due to other products displacing wheat
 - Shortline Rail – Maintenance, state funding/support
 - Truck – Access to river/rail terminals, drivers
 - Water – Aquifers, Columbia Basin water delivery system, Grand Coulee, etc
 - Electric – Northwest power grid
 - Elevator System – Terminals/sub-terminals
 - End Users – Mills
 - Fuel/Fertilizer – Tank farms, terminal/sub-terminal, on-farm
 - Grain Inspection
 - Labor
 - Weather / Natural disasters





Thank You