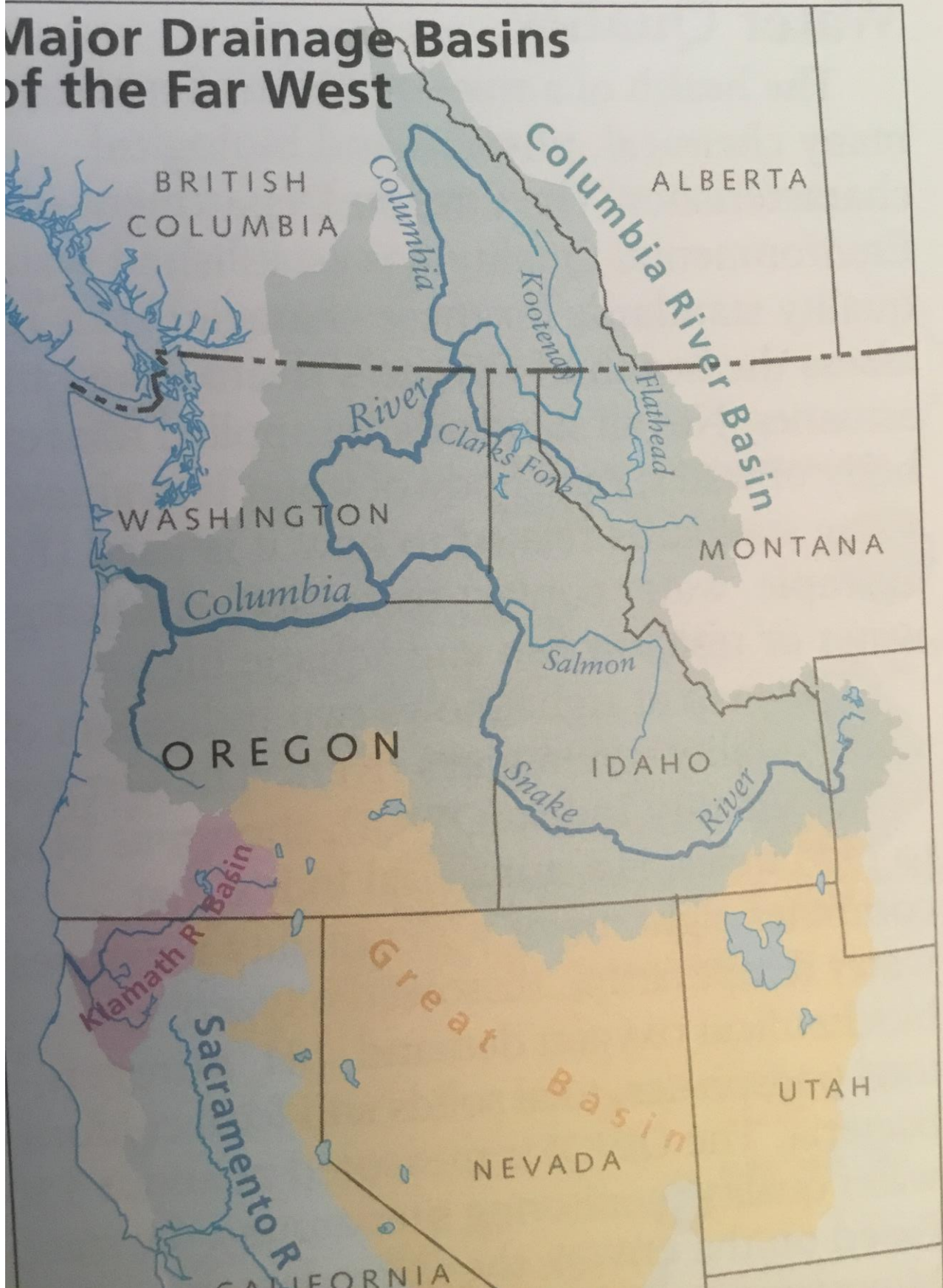


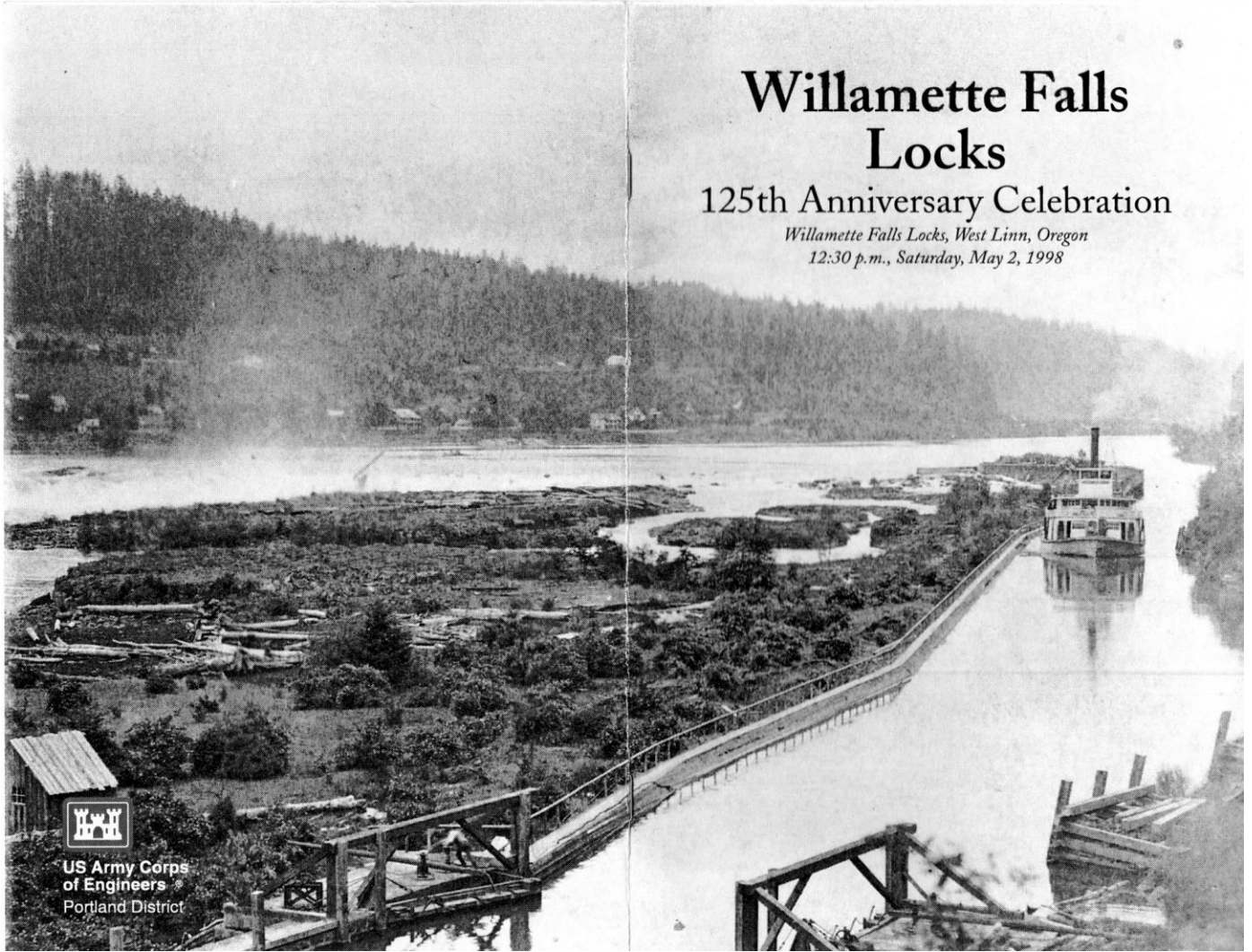
Major Drainage Basins of the Far West



Willamette Falls Locks

125th Anniversary Celebration

*Willamette Falls Locks, West Linn, Oregon
12:30 p.m., Saturday, May 2, 1998*



US Army Corps
of Engineers
Portland District



Rafting through the Oregon City Locks.

1941 Lock Renovation



As part of the 1940s restoration, the original wooden lock gates were replaced with metal gates.



**Spruce Goose Wings entering the
West Linn, Oregon Locks in 1993.**

Printed on paper Manufactured at the West Linn Paper Mill in 2004

Cargo Capacities Compared by Mode			
	BARGE	RAIL CAR	TRUCK TRAILER
Tons	1,500	100	25
Bushels	52,500	3,500	875
Gallons	453,600	30,240	7,560

Figure 3: Cargo Capacities Compared by Mode¹⁰

Emissions Compared by Mode (in pounds per 1 ton of cargo moved 1000 miles)			
	BARGE	RAIL CAR	TRUCK TRAILER
Hydrocarbons	0.09	0.46	0.63
Carbon Monoxide	0.2	0.64	1.9
Nitrous Oxide	0.53	1.83	10.17

Figure 4: Emissions Compared by Mode

Relative Energy Efficiencies (number of miles one ton can travel per gallon of fuel)		
BARGE	RAIL CAR	TRUCK TRAILER
514	202	59

Figure 5: Relative Energy Efficiencies

Comparison of Cargo in Pounds per Horsepower		
BARGE	RAIL CAR	TRUCK TRAILER
10,700	4,500	300

Figure 6: Comparison of Cargo in Pounds per Horsepower











