Freight Transport on the Lower Snake River: Putting Total Tonnage and Ton-miles in Perspective

In the draft Environmental Impact Statement for the Lower Snake River Programmatic Sediment Management Plan, the Army Corps of Engineers grossly exaggerates the volume of commercial freight transported on the lower Snake River. This volume declined 45% between 2000 and 2010, with more than half of this drop occurring before the 2008-2009 recession. The lower Snake River carries 5% of total tonnage of the Columbia/Snake River System and about 1/2 of 1% of the nation’s total tonnage on inland waterways. In terms of ton-miles, a more accurate reflection of a given river’s relative importance in U.S. waterborne freight transport, the lower Snake River accounts for a mere 1/10th of 1 percent of all freight transported on the U.S. inland waterway system.

On January 24, 2012 the US Army Corps of Engineers (USACE), Walla Wall District, held an open house and Q & A session in Lewiston Idaho regarding the Corps’ proposed Lower Snake River Programmatic Sediment Management Plan (LSRPSMP). This plan calls for dredging the confluence of the Snake and Clearwater Rivers every 3-5 years for at least the next 20 years. Most of the questions from attendees raised the issue of cost, for which the Corps provided no information. Two related questions inquired about the future priority of lower Snake River navigation given the inability of present Corps funding to address the financial demands of an aging national inland waterway system and large pending budget cuts at the federal level. Corps spokespeople did answer this question, explaining that a major criterion for funding used by the Corps nationally was that of tonnage shipped on any given waterway. The data below sheds light on this topic with respect to the ColumbiaSnakeRiverSystem (CSRS) as well as Snake River shipping itself. All data comes from USACE data centers, the LSRPSMP Draft Environmental Impact Statement, district dam and lock information, or port shipping reports.

1. The LSRPSMP DEIS notes that the 2007-2009 recession resulted in a drop in volume of barged freight on the lower Snake River. While the recession no doubt had an impact, the decline in barge shipping had been underway for the previous six years. Pulp and paper, wood products and grains make up about 90% of what is barged on the Snake. Pulp and paper shipments at Lower Granite dam declined 85% from 2000 to 2005, then another 37% from 2005 to 2010, for a total 10-year decline of 90%. Grain dropped by 28% from 2000-2005, then another 17% between 2005-2010 for a total ten-year decline of 40%. Wood products declined 40% over the ten-year period. For all products passing through the Lower Granite lock, tonnage declined 45% from 2000-2010, with more than half of this decline occurring before 2006. Changes at Lower Granite closely mirror changes at the other 3 Snake River dams.
The amount of decline in tonnage shipped is similar at the Port of Lewiston, where shipments of their major export, grain, declined by 26% from 2000-2005, followed by another 15% decline over the next 5 years. Total grain shipments from 2000 to 2010 declined 36%. The POL website shipping reports only include the years 2007-2012 for some commodities. During this 6-year period paper shipments declined 81%, container shipments by 77%, and the POL has not shipped any lumber for the past 5 years.

As a side note, the Port of Lewiston now plans to spend $3 million to extend its container dock. The current dock, which POL has certified to be in good repair, now handles less than 25% of the amount of freight it handled in 2000.

2. The LSRPSMP DEIS claims approximately 10 million tons of cargo are transported annually on the lower Snake River. Any cost-benefit analysis of dredging and other system maintenance activities would presumably be based in part upon this figure. USACE’s 10-million ton claim in the DEIS represents at best a gross misrepresentation of the facts.

McNary dam is the first dam on the Columbia below the mouth of the Snake River. All marine freight traveling from and to the Snake River and upper Columbia, including the Pasco, Kennewick and Richland area, passes this lock. According to the USACE Waterborne Commerce Statistics Center (WCSC), total tonnage that passed through McNary locks in 2010 was 5.5 million tons. Ice Harbor Dam is the first dam on the Snake River above its mouth, hence the most downstream of the 4 SR dams. USACE reports 2010 tonnage at Ice Harbor at 2.9 million tons, or roughly half of the tonnage that passes over McNary. Lower Granite in 2010 passed 1.25 million tons, Little Goose 2.3 million tons (which of course included most or all of the 1.25 million tons from Lower Granite), and Lower Monumental had 2.2 million tons. With Ice Harbor at 2.9 million tons, the lower Snake River likely contributed around 50% of the total tonnage that passed McNary. Any perusal of the USACE’s own WCSC by the preparers of the DEIS would have cast serious doubt on the claim that 10 million tons of freight is shipped on the Snake River annually.

Table 3-13 provides a clue as to how Corps personnel may have arrived at this erroneous figure. The table lists the tonnage that passed through each of the 4 dams on the lower Snake River from 1994-2009. If one adds the tonnage at each lock, the total for 2005, for example, is 10,895 million tons. For 2009 this figure is 9,132 thousand tons. Such figures may be the basis for the erroneous claim in the DEIS that total annual tonnage on the lower Snake is about 10 million tons. This claim assumes none of the tonnage that passed through the locks at Little Goose also passed through Lower Granite, that none of the freight transported through Lower Monumental dam included any of the tonnage that had passed through the two upstream dams, and so on. This claim further requires that little of the tonnage shipped on the Snake ever reaches McNary and that no freight is transported on the upper Columbia to or from Kennewick, Pasco, and Richland.

3. Barge, dam and port supporters often refer to total tonnage shipped on the Columbia/Snake River System in applications for funding and justification for river
navigation and port projects. As noted above, the USACE reported 5.5 million tons of commercial freight passed through McNary Dam in 2010. That same year freight tonnage on the Columbia main channel and all of its tributaries, including the Snake River, totaled 55.05 million tons. Thus the upper Columbia and lower Snake contributed approximately 5.5/55.05, or 10% of total shipping on the CSRS. An estimated 50% of the 5.5 million tons crossing McNary came from the lower Snake River. The lower Snake thus contributes an estimated 5% of total tonnage on the CSRS.

4. The USACE provides data on all freight shipped on U.S. inland waterways by river. Total tonnage in 2010 was 565.6 million tons. The CSRS accounted for 55 million tons, or about 10% of the total. Snake River freight of approximately 2.5 million tons then accounts for less than ½ of 1% of freight shipped on the U.S. inland waterway system.

5. The USACE also provides statistics on ton-miles of freight shipped on all inland waterways by river. Ton-miles provide a second, and more accurate, measure of a single waterway’s contribution to the whole waterway system. Total ton-miles in 2010 on all U.S. inland waterways were 263.2 billion. In 2010 the CSRS provided 2.2 billion ton-miles to the national total, or .8%. The lower Snake River provided .3 billion-ton miles of waterborne freight movement. On the national level, the lower Snake thus contributed an estimated 1/10th of 1% of all U.S. inland waterway freight movement when measured in ton-miles.

Recognizing the extent of its infrastructure and agency responsibilities, the growing rate of deterioration of its facilities and decreasing agency and federal budgets, The Army Corps of Engineers recently requested the National Academy of Sciences to prepare a report on possible USACE options. The resulting work, *Corps of Engineers Water Resources Infrastructure: Deterioration, Investment, or Divestment?* noted the Army Corps is in “an unsustainable situation for maintenance of existing infrastructure. This scenario entails increased frequency of infrastructure failure and negative social, economic, and public safety consequences.” One major alternative outlined in the NAS report suggests the possible divestiture or decommissioning of parts of the Corps’ infrastructure. In light of the information provided above, the maintenance of barge transportation on the lower Snake River appears to be a good candidate for such consideration.