# **Survey of Snake River Grain Elevator Facilities**

Contract No.: DACW72-95-D-0004

Task Order 0006

Final Report

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Institute for Water Resources
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## **OVERVIEW**

This report describes research undertaken and findings developed by Jack Faucett Associates (JFA) of Bethesda, Maryland, in accordance with work order number six of its support contract (number DACW72-95-D-0004) with the Institute for Water Resources of the U.S. Army Corps of Engineers. The study involved investigation of the impacts on grain transportation of a proposed breaching of four navigation and hydropower dams on the Lower Snake River in Washington State.

#### A. BACKGROUND

The Walla Walla District of the United States Army Corps of Engineers (USACE) (hereafter, "the Walla Walla District") is studying a proposal to breach four navigation and hydro-power dams on the Snake River between Kennewick, Washington and Lewiston, Idaho. The study project is entitled *The Lower Snake River Juvenile Salmon Migration Feasibility Study*. It will include an Economic Analysis Report (EA), along with other technical analyses.

The four dams involved are the Ice Harbor Dam, the Lower Monumental Dam, the Little Goose Dam, and the Lower Granite Dam. The purpose of the proposed breachings is to restore juvenile salmon migration rates. There is some evidence (hotly disputed among the various interested parties and fisheries experts) that breaching will restore the juvenile migration rates by restoring fuller water flows and rendering the juvenile salmon less susceptible to predators.

The Walla Walla District has tasked Planning Branch of the USACE/Portland District (hereafter, "the Portland District") to conduct the navigation analysis portion of the EA. The objective of the navigation analysis is to study the effects of the proposed breachings on the cost of transporting commodities that are currently shipped on the Lower Snake River. To accomplish this objective, the Portland District will evaluate two scenarios: (1) a no-project condition in which the dams are not breached and commercial navigation continues all the way to the vicinity of Lewiston, Idaho, and (2) a with-project condition, in which the four dams are breached, and the head of commercial navigation is lowered to the vicinity of Richland, Pasco, and Kennwick, Washington, near the confluence of the Snake and Columbia rivers.

The Portland District has tasked the Corps' Institute for Water Resources (IWR) at Fort Belvoir, Virginia to assist it with the navigation analysis. IWR will analyze current and projected navigation patterns on the Columbia-Snake River System (CSRS) and develop modal cost comparisons.

JFA is an Economic and Public Policy consulting firm, located in Bethesda, Maryland. JFA has a support contract with IWR, who has tasked JFA to assist it with its work on this project. Specifically, IWR has tasked JFA to analyze existing data concerning the inland origination points of grains that are trucked to Snake River elevators, then barged on the Snake and Columbia, primarily to export houses in the vicinity of Portland and Vancouver, Washington. This report memorializes the resulting research performed by JFA, and documents its findings.

JFA's work revolved around information already compiled by the Portland District and a contractor, the Transportation Research and Analysis Corporation (TRAC). In 1993, TRAC developed a quantitative profile of barge commodity movements on CSRS. The TRAC data was provided to the study team by the Portland District.

### B. ISSUES ADDRESSED

IWR tasked JFA to focus on a narrow issue: whether data developed in 1993 by the Portland District and a contractor still reflect the movement patterns of grains from off-river origins to Snake River grain elevators. This purpose featured two components: (1) whether data concerning off-river-origin-to-river-elevator movements still fairly represents the operations of the river elevators, and (2) whether the locational patterns of the country elevators identified as origination points by the TRAC data still fairly represents the current patterns. Where patterns had changed or other discrepancies appeared, JFA was tasked to explain those discrepancies and resolve them where possible.

#### C. EXECUTIVE SUMMARY

Through the research conducted in accordance with the SOW for this project, the study team arrived at conclusions concerning each of the issues identified in the previous subsection. The study team's findings on each issue were based primarily on the centerpiece of its research methodology; conducting interviews with the river elevator operators.

The study team interviewed and obtained information from ten of the twelve major river elevator facilities on the Snake River (excluding facilities below the Ice Harbor dam.) The facilities from whom the team did not obtain information were both Cargill and Cograin facilities, one at the Port of Walla Walla/Burbank, the other in the Lower Monumental Pool, near the Windust facility. The facility and corporate management of the Burbank elevator refused to furnish any information to the study team. The elevator in the Lower Monumental Pool was initially was unknown by the study team. It was built after the TRAC data was developed and now handles grains originating from the Odessa Union Warehouse cooperative, formerly being shipped through the Almota elevator. The resources did not exist within this project to explore the operations newly discovered of this facility anew (without any TRAC data), and, in any case, the fact that the facility is owned by Cargill and Cograin suggested that the managers of it would not cooperate with the study team.

The study team estimates that its analysis of these ten of twelve total facilities, it accounted for approximately 91 percent of total grains moving through river elevator facilities on the snake. This estimate is based on the original TRAC data and represents the total volume of grains less the Burbank total and less the non-Burbank Odessa Union Warehouse total, divided by the total volume.

With regard to how well the TRAC did continues to represent the operations of the river elevator facilities, the study team believes that the it is no longer accurate. For one thing, the total volume of grains has increased substantially (22.3 percent.) Moreover, the volumes in the predominant states have changed in different directions. Volumes out of Washington have increased by 42.1 percent, while volumes out of Idaho have shrunk by 25.5 percent. These broad indications of changed movement patterns indicate substantial changes to county-level origination patterns and pool-level river elevator destination patterns.

As will be discussed in the next section, the study team's methodology for evaluating the continued accuracy of the TRAC data was based on, essentially, updating it. Consequently, in arriving at the conclusion that IWR ought not utilize the TRAC data, the study team developed an alternative to it. That updated data is provided with this report, along with specific recommendations concerning how IWR ought to employ it, including several caveats.

As to the second issue, the study team found that the locational patterns of the country elevators have not changed significantly since the TRAC data was developed. A few consolidations and mergers have occurred, but the locational patterns and operations of the facilities have remained the same. The locational patterns of the country elevators does not seem to be a factor influencing the accuracy of the TRAC data vis-à-vis current movement patterns.

### D. ORGANIZATION OF REPORT

This report is organized into three sections. *Section I* describes the methodological approach employed by the study team to address the issues raised in the SOW. *Section II* describes the information gathered during the study team's work. *Section III* concludes the report by articulating the findings of the research.

## E. A NOTE CONCERNING THE FORMAT OF SOME EXHIBITS

The study team used a technique known as "upsumming" to organize the data with which it was working. Many of the exhibits in this report will portray data in an "upsummed" scheme. In case the reader is not familiar with this method for organizing data, it is briefly explained here.

Upsumming is a technique by which data is presented in levels. Each level sums to the one above it. The levels are represented by indentations of one column within a spreadsheet.

A simple example will demonstrate the concept. Over the last year, the four river elevator facilities in the Lower Granite Pool have moved approximately 48,909,713 bushels of wheat and barley. Of these, approximately 26,909,713 were moved through the two facilities at the Port of Lewiston, 2,500,000 through the Port of Clarkston, and 20,000,000 through the Port of Wilma. In an upsumming scheme this total and its three constituent totals would be represented as follows.

River Elevator Facility(s)	Total Bushels
Total, Lower Granite Pool	48,909,713
Port of Lewiston	26,409,713
Port of Clarkston	2,500,000
Port of Wilma	20,000,000
Port of Lewiston Port of Clarkston	26,409,71 2,500,00

The critical feature of an upsumming scheme is that the everything indented by one tab space sums to the total above it, indented one fewer tab space.

This indentation scheme can contain several or more layers. For instance, suppose we were to introduce an additional level of constituent information, such as the fact that two river elevators operate at the Port of Lewiston, in addition to brokered grains that are purchased on behalf of Continental, but which move through the LCTA/Clarkston facility. That additional level of information would be reflected in an upsumming scheme as follows.

River Elevator Facility(s)	<b>Total Bushels</b>
Total, Lower Granite Pool	48,909,713
Port of Lewiston	26,409,713
Continental Grain Elevator	9,092,600
Brokered Grains	1,317,113
Lewis & Clark Term. Assoc. Elev.	16,000,000
Port of Clarkston	2,500,000
Port of Wilma	20,000,000

Additional layers can be added as necessary. Many of the exhibits in this report will feature as many as eight levels of detail. Also, this type of structure will underlie references in this report to "lower levels" or "higher levels" of information.

# SECTION I: METHODOLOGICAL APPROACH

This section will describe the methodological approach taken by the study team to evaluate the questions presented by the SOW. The study team relied on interviews with the river elevator operators identified by the client as points of contact to evaluate these issues. The study team also utilized the TRAC data, and other sources of information as supplements, where necessary.

Early on, the study team determined that its best approach to the identifying discrepancies between the TRAC data and the current movement patterns was simply to update the TRAC data. This conclusion followed from the realization that more than a few minor discrepancies existed and the operators themselves were not – for the most part – eager to invest a lot of time in discussing them. The study team's conclusions concerning the "continued accuracy" of the TRAC data rest on a macroscopic comparison of it to the updated data. These comparisons were conducted at the total, state, and county levels for originations, and in terms of destinations for both pools and elevators.

It was clear also to the study team that the most fecund source of information concerning movements off-river-to-river grain movements is the river elevator operators themselves. The majority of JFA's resources for this project, therefore, were dedicated to conducting interviews with the river elevator operators. Eleven river elevators on the Snake were contacted. They are listed in *Exhibit 1*. JFA interviewed both corporate and facility managers for each facility. A list of contacts is provided as *Appendix C* to this report.

The decision to rely primarily on the operators was based on two factors. First, and most definitively, no alternative could be identified. The TRAC data was highly detailed, identifying each individual country elevator. Short of reproducing TRAC's methodology – which was not possible within the budget and scope of this job – no source of such detailed information was identified. The study team concluded, therefore, that interviews with the facility operators themselves and their parent companies was the only reasonable means of investigating the accuracy of the detailed TRAC data.

The study team correctly anticipated that at least some of the river elevator facility and corporate managers would be hesitant to cooperate. As it turned out, this was true to some extent of all the operators, even those that eventually provided updated totals for all of its off-river origination points. At the other extreme, one operator refused to cooperate in any way. This was the Port of Walla Walla/Burbank. No information concerning its operations are presented in this report.

The reticence of the facility and corporate managers of the elevators is not surprising. In some cases, it stemmed from antagonism toward the purposes of the study which JFA's work is supporting. More often, it resulted from competitive concerns. Particularly

## Exhibit 1:

# **River Elevators Interviewed**

Owner	Location
Continental Grain	Port of Lewiston
Lewis & Clark Terminal Assoc.	Port of Lewiston
Lewis & Clark Terminal Assoc.	Port of Clarkston
Columbia Grain Growers	Port of Wilma
Cargill	Port of Walla Walla (Burbank)
Walla Walla Grain Growers	Port of Walla Walla (Sheffler)
Louis Dreyfus, Inc.	Windust
	(5 miles down river from Lower Granite Dam)
Pomeroy Grain Growers	Central Ferry
Central Ferry Terminal Assoc.	Port of Whitman
Columbia Grain Growers	Lyons Ferry
Almota Elevator Co.	Port of Almota

among the facilities with larger operations, such concerns were uniformly expressed to the study team, and in some cases dispositive in an operator's decision to yield no information or only limited information.

In anticipation of the interviewes' predictable tendencies toward reticence, the study team carefully strategized for the interviews. The study team attempted to be sensitive to the types and amounts of information that the operators would feel comfortable providing to the team, and also toward the amount of time and effort required for them to provide us with certain types of data. Particularly with regard to the first point, the study team found that this sensitivity tended to foster a rapport, and in the end, maximize the cooperation of the operators. Also, the study team was careful to prioritize the information it attempted to obtain. In some cases, operators were willing to cooperate, but not to devote very much time to the effort.

The issues inquired into during these interviews centered on the TRAC data. Prior to the interviews, the study team analyzed the TRAC data and converted it into slightly different form, reflecting each interviewee's operations. The result was a "snapshot" of the off-river origins of grains moving through each of the elevators. These snapshots provided the total bushels of wheat and barley received at the top level, totals by state of origination at the second level, county totals for each state at the third level (except for originations in Montana and North Dakota, which TRAC subdivided by regions), and finally, at the fourth level, a breakdown by individual off-river origins.

By providing the operators with the TRAC snapshot of their operations, the study team made their provision of additional information a simpler task for the interviewees. It also allowed them to conceptualize more easily of the type of data we hoped to obtain from them. Moreover, with regard to their hesitance to provide additional data, the snapshots presented a *fait accompli* to the operators. That is, it demonstrated the point that decision-makers were going to make a decision based, in part, on numbers already developed. By cooperating with the study, the operators had an opportunity to ensure that those numbers represented their interests as accurately as possible.

The study team initially telephoned each of the interviewees and explained the purpose of the call, the purpose of its study, and how it fit in to the Walla Walla District's study. The study team stressed that the Corps had tasked us to analyze the data to ensure that it adequately reflected the full breadth of their operations so that accurate costs could be associated with the proposed project. The TRAC snapshot was then faxed to the facility manager, and he or she was asked to review it to see how well it reflected their current operations.

This initial contact was followed up several days later by another telephone call. At this point, the study team initially inquired into the operator's thoughts about the data with an open ended question. This was followed up with more detailed questions. These questions were not pursuant to a formal survey, but rather designed to prompt discussion of each elevator's current operations, vis-à-vis the TRAC data. Some of the questions asked included the following.

- Are there any off-river origins listed with whom you no longer conduct business?
- Are there any off-river origins from whom you receive grains who are not listed on this list?
- Are there any off-river origins listed whom you know to have ceased operations?
- Are there any country elevators listed whose ownership has changed, or which have been consolidated with other operations?
- Do the total bushel amounts of wheat and barley reflect your current operations?

- Do the origination percentages, by state, for the grains reflect your current operations? By county? By some of the larger originators?
- Is the ratio of barley to wheat bushels still reflective of your current operations? For the total received? For each state?
- Is the ratio of farm-to-river-direct shipments to shipments originating from a country elevator approximately the same? For the total bushels received? For each state? For each county?
- Have the locational patterns of the country elevators shipping grains to your elevator changed? Do you see any elevators that are missing from the data? Do you see any that have been sold to new ownership? Are there any with whom you no longer do business? Are there any that are out of business?

In some cases, quite lengthy discussions ensued from these questions. In others, the operators provided precise, current data, with little prompting necessary. In a few cases, the operators provided only general information, or refused to cooperate. Some means existed to compensate for uncooperative operators, but to some extent, the reliability of this report's conclusions is limited by the failure of some river elevator operators to provide meaningful information.

In several cases, the study team supplemented the initial telephone/fax interviews with site visits. The budget supported only a brief visit to the northwest. The study team therefore exercised judiciousness about whom it chose to interview in person. It was decided that the Lower Granite Pool was the most critical area, about which the least information had been initially discovered. Due to scheduling conflicts, the study team was unable to meet with the manager of the LCTA facilities, but did spend four hours with four managers at the Continental Grain facility. This interview, and subsequent faxes greatly increased the study team's knowledge of the Continental operations, the accuracy of the TRAC data, and importantly, the volumes of grains moving through both the Port of Lewiston and the Lower Granite Pool. The study team also met with the corporate manager of the Continental facility, whose office is in Portland.

The study team also visited the elevator facility at Walla Walla/Burbank, based on their initial reluctance to provide information. The study team was unable to convince the facility managers to even provide a cursory review of the TRAC snapshot. In fact, they were rather upset by the fact we possessed the data, referring to it as "proprietary," "competition sensitive," and – perhaps most directly to their point – "none of [our] business." The facility manager referred the study team to a representative of the Corporate owner, Cargill. Several conversations with him were equally ineffective, and, in fact, he would not agree to meet with the study team. He implied that the data had been acquired by the Corps without the consent of the Cargill, stating that facility manager may have given it to the Port, and that the Port inappropriately furnished it to the Corps.

Based on these initial interviews and site visits, the study team developed initial updates of the TRAC "snapshot" data for each river elevator. These updates were then faxed again to the facility managers, who were asked to review them again to ensure that it reflected their current operations. In some cases, these second wave of interviews yielded additional information. This was probably the result of an increased rapport between the study team and the interviewees.

The updated snapshots accurately reflect the current operations of the elevators to varying degrees and to varying levels of detail, depending upon the amount of information the operator was willing to give the study team. In one case, no information was provided. In some cases, the operator fully updated all the information contained in the snapshot. In most cases, some amount of extrapolation or implication was

involved in updating the TRAC data. *Section II* will describe the data collected and the updated snapshots in depth.

The updated TRAC snapshots served two purposes toward the ultimate objects of this report. First, it gave the study team a basis for evaluating the TRAC data as a source of data concerning current grain movements throughout the region. Second, it gave the study team a way of providing an alternative to the TRAC data as another basis for IWR's analyses.

## **SECTION II:**

## DATA OBTAINED

This section will describe the data obtained from the river elevator operators during the interviews conducted by the study team as described in *Section I*. For the most part, the section is organized by river elevator. One exception is the subsection addressing the entire Lower Granite Pool. The operations within it were addressed as a unit, because the study team possessed information that tied their operations together, and in some cases used information or data concerning one facility to assist it in updating the TRAC data for another facility in the Pool.

It is important to note that the updates to the TRAC snapshots provided in this section — and upon which the study team's conclusions are built — are estimates. The updates are based in part on actual data, in part on estimates provided by the facility managers, in part of extrapolations, and in part on relationships found in the original TRAC data. The study team is confident of the accuracy of these estimates, particularly at the state and county levels, but nonetheless, the updates reflect estimates, not an accounting of actual totals.

Related to this caveat is the fact that the updates do not reflect activity within a given year. Rather, the updated snapshots portray a "representative year" of operations for the facility. In some cases the facility managers provided totals for May of 1997 through April of 1998, stating that the last year of operations was a representative year. In other cases, the facility manager recommended adjustments to the TRAC data where it no longer reflected his or her operations, but did not supply any actual data. The final result, aggregating all the updated snapshots, is a new data set that fairly represents the current movement patterns of grains to the river elevators, but which cannot be associated with a particular year.

## A. WALLA WALLA GRAIN GROWERS/PORT OF WALLA WALLA (SHEFFLER)

The study team interviewed two representatives of Walla Walla Grain Growers (WWGG), one at a regional headquarters located at a country elevator in Walla Walla, and another the Sheffler river elevator facility. *Exhibit 2* compares the original TRAC data with the updated version of it developed by the study team.

The study team is quite confident in the accuracy of the updated data. This confidence stems from the high level of cooperation offered by both of the representatives interviewed. The manager of the river elevator itself provided the study team with actual figures concerning the current bushels received from the off-river origins.

Like many of the elevators that are operated by cooperatives, the off-river origins of grains received at Sheffler have not changed much since the TRAC data was developed.

Exhibit 2: Comparison of TRAC and Updated Off-River Origins Port of Walla Walla/Sheffler

		% Change	TOTAL BUS	HELS:	BARLEY:		WHEAT:	
Total/By State/By County/By Origin	Town	Total	Current	TRAC	Current	TRAC	Current	TRAC
Total		89.55%	8.280.400	4.368.493	785.011	413.039	7.495.389	3.955.454
Originating in Idaho			0	0	0	0	0	0
Originating in Montana			0	0	0	0	0	0
Originating in North Dakota			0	0	0	0	0	0
Originating in Oregon			0	0	0	0	0	0
Originating in Washington		89.55%	8,280,400	4,368,493	785,011	413,039	7,495,389	3,955,454
Walla Walla County Total		89.55%	8,280,400	4,368,493	785,011	413,039	7,495,389	3,955,454
Touchet Valley GG Origins		additional	2,000,000	0	189,607		1,810,393	
Walla Walla GG Origins		43.77%	6,280,400	4,368,493	595,404	413,039	5,684,996	3,955,454
Farm to river direct		26.00%	4,029,000	3,197,578	458,129	363,590	3,570,871	2,833,988
WWGG Country Elevator	Clyde	325.36%	277,800	65,310	55,560	13,062	222,240	52,248
WWGG Country Elevator	Ennis	180.03%	330,500	118,025	65,316	23,325	265,184	94,700
WWGG Country Elevator	Eureka	115.16%	108,400	50,382	0	0	108,400	50,382
WWGG Country Elevator	Paddock	25.54%	167,500	133,419	16,399	13,062	151,101	120,357
WWGG Country Elevator	Pleasant View	734.30%	194,600	23,325	0	0	194,600	23,325
WWGG Country Elevator	Rulo	169.84%	321,000	118,958	0	0	321,000	118,958
WWGG Country Elevator	Smith Springs	-48.84%	223,400	436,644	0	0	223,400	436,644
WWGG Country Elevator	Spring Valley	179.38%	628,200	224,853	0	0	628,200	224,853

Source: Based entirely on interview with facility manager

As *Exhibit 2* demonstrates, all of the original TRAC origins were WWGG country elevators. They all still truck grains to Sheffler. In terms of current off-river origins, the sole difference between the original and updated TRAC data is the existence of an additional off-river origin for Touchet Valley Grain Growers (TVGG). This addition is the result of the merger between WWGG and TVGG.

The current quantity of grains moving to the Sheffler elevator is 89.5 percent greater than in the original TRAC data. This increase stems partially from increased shipments from WWGG country elevators, and partially from the addition of shipments from TVGG country elevators. Leaving aside the addition of TVGG grains, the total shipments of WWGG country elevators has increased 43.8%. The remainder of the increase is the product of the merger.

## B. LOUIS DREYFUS/WINDUST

The study team was able to acquire fairly extensive information from the facility manager at Windust. This information was obtained in the course of four telephone interviews, and several exchanges of faxes. Specifically, the information provided by the Windust facility manager included the following.

- Total bushels of wheat and barley received in 1997,
- Percent breakdowns of originations by state,
- Information that Odessa Union Warehouse Cooperative no longer ships grains to the facility, and
- Revised and new totals for farm-to-river direct shipments of wheat originating in Adams, Franklin, Lincoln, and Grant counties.

Using this information, the study team updated the TRAC data. The totals and state percentages provided by the facility manager were used as controls in restructuring the lower level data. Grains no longer moving to the facility from Odessa Union facilities were distributed to other elevator origins within the same county according to their TRAC share of that county's elevator origins. The farm-to-river information was input directly. Where the facility manager provided percentages only for total bushels, wheat to barley ratios were taken from the TRAC data. Finally, all the remaining origination totals were scaled to match the county level data provided by the operator. A summary of the update methodology is provided in *Exhibit 3*.

The overall volume of grains trucked to Windust has changed little, increasing by only 2.2 percent. Noticeable changes, however, were apparent in the pattern of county origins. This seems to have been driven primarily by the loss of Odessa Union grains and Windust's increased business with other off-river origins, particularly in Spokane and Whitman counties. *Exhibit 4* provides a comparison of the original and updated TRAC snapshots for the Windust facility.

Exhibit 3: Summary of Methodology for Updating Windust TRAC Data

Total/by state/by county/origin		Total bus	Barlev	Wheat	Methodology
Total (All Originations in Washington	)	13.785.196			Obtained from Fac. Mgr.
Total (All Originations in Washington	)	13,763,170	1,470,447	12,200,747	County % obtained from
Adams		8,271,118	526,217	7 744 901	Facility Manager
B & H Chem Co., Inc.	Booker	185,846	0		The new total for Adams
Blankenship Farms Inc.	Washtucna2	464,527	60,514		county was redistributed
Farm-River	Farm-River	812,732	0		among the off-river origins
Odessa Trading Co., Inc.	Batum	272,708	0		based on the original
Odessa Trading Co., Inc.	Moody	181,806	0		TRAC data, less the
Odessa Union WH Co-Op	Lauer1	0	0		bushels originating at
R R Warehouse, Inc.	Ritzville	2,208,583	245,082		Odessa Union.
Union Elev & Warehouse Co.	Bauer	3,108,307	160,362	2,947,945	
Washtucna GG, Inc.	Fletcher	383,639	25,178	358,460	
Washtucna GG, Inc.	Sand Hills	278,922	35,080	243,842	
Washtucna GG, Inc.	Washtucna1	374.048	0	374,048	
					County % obtained from
Franklin		964,964	11,416	953,548	Facility Manager
Farm-River	Farm-River	579,774	0	579,774	Obtained from Fac. Mgr.
					Calculated (Franklin
					county total less F-R
Washtucna Grain Growers, Inc.	Sperry	385,190	11,416	373,774	shipments)
					County % obtained from
Grant		61,434	0	61,434	Facility Manager
					County % obtained from
Farm-River		61,434	0	61,434	Facility Manager
Odessa Union WH Co-Op	Ephrata	0	0	0	Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Ephrata	0	0	0	Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Stratford	0	0	0	Obtained from Fac. Mgr.
					County % obtained from
Lincoln		2,089,057	453,487		Facility Manager
Farm-River		100,000	0	100,000	Input
Davenport Union Warehouse Co.		253,783	73,291	180,492	See below. remainder of
Odessa Trading Company, Inc.	Odessa2	173,550	0	,	Lincoln County. after
Odessa Trading Company, Inc.	Schmierer	208,260	0	208,260	Odessa Union.
Odessa Union WH Co-Op	Downs1	0	0	0	Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Harrington2	0	0	0	Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Irby	0	0	0	Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Lamona	0	0		Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Mohler1	0	0		Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Odessa1	0	0	0	Obtained from Fac. Mgr.
Odessa Union WH Co-Op	Rocklyn	0	0	0	Obtained from Fac. Mgr.

Exhibit 4:
Comparison off TRAC and Updated Off-River Origins
Windust

		% change	TOTAL BU	USHELS:	BARLEY:		WHEAT:	
tal/by state/by county/origin		Total	Current	TRAC	Current	TRAC	Current	TRA
otal (All Originations in Washington)		2.22%	13,785,196	13,485,196	1,498,447	1,498,447	12,286,749	11,986,7
Adams		9.39%	8,271,118	7,561,146	526,217	448,431	7,744,901	7,112,7
B & H Chem Co., Inc.	Booker	7.22%	185,846	173,328	0	0	185,846	173,3
Blankenship Farms Inc.	Washtucna2	8.78%	464,527	427,040	60,514	50,240	404,013	376,8
Farm-River	Farm-River	25.52%	812,732	647,468	0	0	812,732	647,4
Odessa Trading Co., Inc.	Batum	7.22%	272,708	254,340	0	0	272,708	254,3
Odessa Trading Co., Inc.	Moody	7.22%	181,806	169,560	0	0	181,806	169,5
Odessa Union WH Co-Op	Lauer1	-100.00%	0	11,555	0	11,555	0	
R R Warehouse, Inc.	Ritzville	8.54%	2,208,583	2,034,720	245,082	203,472	1,963,501	1,831,2
Union Elev & Warehouse Co.	Bauer	7.83%	3,108,307	2,882,520	160,362	133,136	2,947,945	2,749,3
Washtucna GG, Inc.	Fletcher	8.00%	383,639	355,219	25,178	20,904	358,460	334,3
Washtucna GG, Inc.	Sand Hills	8.72%	278,922	256,542	35,080	29,124	243,842	227,4
Washtucna GG, Inc.	Washtucna1	7.22%	374,048	348,854	0	0	374,048	348,8
Franklin		133.80%	964,964	412,722	11,416	8,792	953,548	403,9
Farm-River	Farm-River	79.19%	579,774	323,546	0	0	579,774	323,5
Washtucna Grain Growers, Inc.	Sperry	331.94%	385,190	89,176	11,416	8,792	373,774	80,3
Grant		-63.77%	61,434	169,560	0	0	61,434	169,5
Farm-River		additional	61,434	0	0	0	61,434	
Odessa Union WH Co-Op	Ephrata	-100.00%	0	42,704	0	0	0	42,7
Odessa Union WH Co-Op	Ephrata	-100.00%	0	26,376	0	0	0	26,3
Odessa Union WH Co-Op	Stratford	-100.00%	0	100,480	0	0	0	100,4
Lincoln		-45.38%	2,089,057	3,824,520	453,487	830,216	1,635,570	2,994,3
Farm-River		additional	100,000	0	0	0	100,000	
Davenport Union Warehouse Co.	Davenport1	4.15%	253,783	243,664	73,291	80,384	180,492	163,2
Odessa Trading Company, Inc.	Odessa2	10.54%	173,550	157,000	0	0	173,550	157,0
Odessa Trading Company, Inc.	Schmierer	10.54%	208,260	188,400	0	0	208,260	188,4
Odessa Union Warehouse Co-Op	Downs1	-100.00%	0	150,720	0	28,888	0	121,8
Odessa Union Warehouse Co-Op	Harrington2	-100.00%	0	572,736	0	172,072	0	400,6
Odessa Union Warehouse Co-Op	Irby	-100.00%	0	74,104	0	0	0	74,1
Odessa Union Warehouse Co-Op	Lamona	-100.00%	0	285,112	0	21,352	0	263,7
Odessa Union Warehouse Co-Op	Mohler1	-100.00%	0	359,216	0	60,288	0	298,9
Odessa Union Warehouse Co-Op	Odessa1	-100.00%	0	251,200	0	0	0	251,2
Odessa Union Warehouse Co-Op	Rocklyn	-100.00%	0	244,920	0	50,240	0	194,6
Reardan Grain Growers, Inc.	Eleanor	10.54%	277,680	251,200	0	0	277,680	251,2
Reardan Grain Growers, Inc.	Gravelle	10.54%	312,390	282,600	0	0		282,6
Reardan Grain Growers, Inc.	Reardon	10.54%	242,970	219,800	0	0	242,970	219,8
United Grain Growers, Inc.	Bluestem	-8.82%	17,178	18,840	17,178	18,840	0	
United Grain Growers, Inc.	Downs2	2.01%	75,592	74,104	29,774	32,656	45,817	41,4
United Grain Growers, Inc.	Harrington1	-8.82%	272,550	298,928	272,550	298,928	0	
United Grain Growers. Inc.	Mohler2	2.06%	155,105	151.976	60.694	66.568	94.411	85.4

## C. POMEROY GRAIN GROWERS/CENTRAL FERRY

The facility manager at Pomeroy/Central Ferry indicated that overall, the TRAC snapshot still fairly represented the current operations of his facility. The off-river origins themselves had not changed significantly, with the exception that the Inland Empire Pea Growers (IEPG) had merged with Harvest States. This merger had not affected the amounts of grains moving from the former IEPG facilities to the river elevator.

In terms of the volume of grains moving to the elevator, the facility manager spotted several inconsistencies. The most critical difference was that a significant share of grains moving farm-to-river direct from Garfield county, Washington were missing from the TRAC snapshot. Initially the facility manager estimated that these grains consisted of 2.1 million bushels of wheat and 900 thousand bushels of barley. Later, upon learning that with that adjustment the total grains originating in Garfield county constituted 27.19 percent of grains being shipped to the elevator, the facility manager revised his initial estimate. He felt that all of the off-river origins in Garfield (including the previously omitted farm-to-river shipments) should be increased proportionally until the total originating in Garfield county represented 50 percent of the total originating in Washington state.

In terms of the percentages of grains originating in other Washington counties, the facility manager estimated that less than one percent of those originating in Washington came from Adams county. Based on this information, the study team continued to use the percentage from the original TRAC snapshot, 0.68 percent. The facility manager also indicated that thirty-five percent originated in Whitman county, and the remainder (14.32 percent) originated from Spokane county. In terms of the split between grains originating in Washington verses Idaho, the facility manager estimated a ratio of nine-to-one. This was similar to the original TRAC snapshot.

The study team used the county level information provided by the facility manager as controls in developing updates of individual off-river origin volumes. Percentage shares implicit in the TRAC data were used to divide county totals among them. A summary of the update methodology is provided in *Exhibit 5*.

Overall, the update shows 15.3 percent more grains moving through the facility. Increases are apparent in each county except for Whitman county, Washington, which declined by 40.7 percent. The addition of farm-to-river grains originating in Garfield county, Washington is the most significant difference between the TRAC and updated data. If left aside, the total volume of grains moving through the facility would have declined by 21.9 percent. *Exhibit* 6 provides a comparison of the original and updated TRAC snapshots for the Central Ferry facility.

## Exhibit

## **Summary of Update**

## Pomeroy Grain Growers/Central

		Tota	Barle	Whea	
Dest	Tow	(bus	(bus	(bus	Methodolog
		22,647,4	5,292,0	17,355,3	TRAC data adjusted slightly based on facility manager
					Facility manager estimate = 10% of total grains. Wheat-to-barley
iginating in		2,264,7	229,86	2,034,8	from TRAC
Bennewah		502,43	C	502,43	County totals in Idaho based on TRAC totals scaled to
Farm-		502,43	C	502,43	Idaho state total. Breakdown between wheat and barley
Bonner		150,73	C	150,73	on ratios taken from TRAC data. The facility manager
Bonners Ferry	Sandpoi	150,73	C	150,73	that the Idaho off-river origins had not changed, so
Boundary		229,86	104,25	125,61	wheat and barley for each county was attributed to the
General Feed &	Bonners	229,86	104,25	125,61	origin within that county given in the
Kootenai		690,85	62,80	628,04	1
Farm-		690,85	62,80	628,04	
Latah		690,85	62,80	628,04	1
Farm-		690,85	62,80	628,04	
					Facility manager estimate = 90% of total grains from WA.
iginating in		20,382,6	5,381,7	15,000,9	barley ratio from TRAC
Adams		138,60	12,60	126,00	Facility manager estimate = 0.68% of grains originate in
Farm-		138,60	12,60	126,00	Wheat-to-barley ratio taken from TRAC, confirmed by Fac.
					Facility manager estimate = 50% of grains originate in Adams.
Garfield		10,191,3	3,097,2	7,094,0	to-barley ratio taken from TRAC, confirmed by Fac
Farm-		7,305,5	2,191,6	5,113,9	Farm-River shimpments based on facility manager
Pomeroy Grain		149,73	50,31	99,42	Other off-river origins increased by 10% over TRAC
Pomeroy Grain		2,077,1	675,61	1,401,5	based on discussion with facility
Pomeroy Grain	Zumwal	179,68	59,89	119,79	<b>-</b>
Pomeroy WH &	Pomeroy	479,16	119,79	359,37	
					Facility manager estimate = 14.32% of grains originate in
Spokane		2,918,8	685,59	2,233,2	Wheat-to-barley ratio taken from TRAC, confirmed by Fac
Fairfield Grain	Fairfiel	304,85	102,78	202,06	Distribution of Spokane county totals by ratios of origin
Fairfield Grain	Waverly	30,13	9,84	20,29	county total found in TRAC. Distribution of each
Farm-	Farm-	568,59	131,21	437,37	between wheat and barley also accomplished by
Inland Empire	Lata	142,14	0	142,14	ratios in TRAC
Inland Empire	Spokane	82,00	0	82,00	1
Inland Empire	Waverly	32,80	0	32,80	1
Rockford Grain	Freema	249,30	0	249,30	1
Rockford Grain	Mea	453,78	8,74	445,03	1
Rockford Grain	Mt.	78,72	0	78,72	1
Rockford Grain	Rockfor	406,76	0	406,76	1
Rosalia Producers,	Plaz	94,03	94,03	-	
Rosalia Producers,	Plaz	207,75	207,75		0

## Exhibit 6:

# Comparison of TRAC and Updated Snapshots Pomeroy Grain Growers/Port of Garfield

		Percent	TOTAL BUS	SHELS:	BARLEY:		WHEAT:	
Orig-Dest Schedule	Town	Change	Current	TRAC	Current	TRAC	Current	TRAC
Total		15.27%	22,647,421	19,647,421	5,292,023	4,392,023	17,355,398	15,255,398
Originating in Idaho		15.34%	2,264,742	1,963,467	229,866	199,287	2,034,876	1,764,180
Bennewah County		15.34%	502,439	435,600	0	0	502,439	435,600
Farm-River		15.34%	502,439	435,600	0	0	502,439	435,600
Bonner County		15.34%	150,732	130,680	0	0	150,732	130,680
Bonners Ferry Grain	Sandpoint	15.34%	150,732	130,680	0	0	150,732	130,680
Boundary County		15.34%	229,866	199,287	104,256	90,387	125,610	108,900
General Feed & Grain	Bonners Ferry	15.34%	229,866	199,287	104,256	90,387	125,610	108,900
Kootenai County		15.34%	690,853	598,950	62,805	54,450	628,048	544,500
Farm-River		15.34%	690,853	598,950	62,805	54,450	628,048	544,500
Latah County		15.34%	690,853	598,950	62,805	54,450	628,048	544,500
Farm-River		15.34%	690,853	598,950	62,805	54,450	628,048	544,500
Originating in Washington		15.26%	20,382,679	17,683,954	5,381,735	4,192,736	15,000,944	13,491,218
Adams County		15.70%	138,602	119,790	12,600	10,890	126,002	108,900
Farm-River		15.70%	138,602	119,790	12,600	10,890	126,002	108,900
Garfield County		993.28%	10,191,339	932,184	3,097,292	823,284	7,094,048	108,900
Farm-River		additional	7,305,598	0	2,191,680	0	5,113,919	0
Pomeroy Grain Growers		10.00%	149,738	136,125	50,312	45,738	99,426	90,387
Pomeroy Grain Growers		10.00%	2,077,159	1,888,326	675,616	614,196	1,401,543	1,274,130
Pomeroy Grain Growers	Zumwalt	10.00%	179,685	163,350	59,895	54,450	119,790	108,900
Pomeroy WH & Feed	Pomeroy2	10.00%	479,160	435,600	119,790	108,900	359,370	326,700
Spokane County		0.41%	2,918,800	2,906,933	685,590	682,803	2,233,209	2,224,130
Fairfield Grain Growers	Fairfield	0.41%	304,853	303,613	102,784	102,366	202,069	201,247
Fairfield Grain Growers	Waverly2	0.41%	30,135	30,013	9,841	9,801	20,294	20,212
Farm-River	Farm-River	0.41%	568,592	566,280	131,213	130,680	437,378	435,600
Inland Empire Pea	Latah	0.41%	142,148	141,570	0	0	142,148	141,570
Inland Empire Pea	Spokane2	0.41%	82,008	81,675	0	0	82,008	81,675
Inland Empire Pea	Waverly1	0.41%	32,803	32,670	0	0	32,803	32,670
Rockford Grain Growers	Freeman	0.41%	249,306	248,292	0	0	249,306	248,292
Rockford Grain Growers	Mead	0.41%	453,780	451,935	8,748	8,712	445,032	443,223
Rockford Grain Growers	Mt. Hope	0.41%	78,728	78,408	0	0	78,728	78,408
Rockford Grain Growers	Rockford	0.41%	406,762	405,108	0	0	406,762	405,108
Rosalia Producers, Inc.	Plaza	0.41%	94,036	93,654	94,036	93,654	0	0
Rosalia Producers, Inc.	Plaza	0.41%	207,755	206,910	207,755	206,910	0	0
Rosalia Producers, Inc.	Spangle1	0.41%	267,894	266,805	131,213	130,680	136,681	136,125
Whitman County		-40.72%	7,133,938	12,033,830	1,586,253	2,675,759	5,547,685	9,358,071
Auvil-Warner Co.	Belmont	-40.72%	16,817	28,368	2,582	4,356	14,235	24,012
Auvil-Warner Co.	Warner Siding	-40.72%	3,066	5,172	180	304	2,886	4,868
Farm To River Direct	Farm-River	-40.72%	1.291.170	2.178.000	129.117	217.800	1.162.053	1.960.200

## D. CENTRAL FERRY TERMINAL ASSOCIATION/PORT OF WHITMAN

The manager of the Central Ferry Terminal Association (CFTA) river elevator at Port of Whitman provided significant information concerning its current operations, vis-à-vis the TRAC data. Specifically, he indicated that:

- Approximately eight million bushels of wheat and barley have been were shipped to the facility between June of 1997 and April of 1998.
- Another two-hundred thousand to four-hundred thousand bushels were expected to be shipped to the facility in April and May of 1998.
- The facility receives between eight and ten million bushels per year.
- About two-thirds of these grains are wheats, the other third is barley.
- No grains originating in Kootenai county, Idaho, or Garfield and Spokane counties, Washington are still shipped to the facility.
- The only grains shipped to the facility originate in either Whitman or Columbia counties, Washington.
- About eight percent of those grains originate in Whitman county, Washington.

Given the small number of off-river origins featured in the TRAC snapshot, this information was sufficient to develop a highly accurate updated representation of the facility's current operations.

The most noticeable change is the loss of all off-river origins in Kootenai county, Idaho, as well as Columbia and Garfield counties, Washington. All of the facilities off-river origins are currently in Spokane and Whitman counties, Washington. *Exhibit* 7 provides a comparison of the original and updated TRAC snapshots of the CFTA operations.

## E. COLUMBIA GRAIN GROWERS/LYONS FERRY

The facility manager at the Lyons Ferry terminal was quite forthcoming in providing information. He indicated that the TRAC data omitted transfers of grain from Columbia County Grain Growers (CCGG) country elevators to the facility. The total omitted was almost 2.9 million bushels. He also provided new bushel counts for four off-river origin and indicated that farm-to-river volumes out of Walla Walla county had not changed significantly. Farm-to-river movements out of Columbia county, on the other hand, increased by 151%. All but 42,000 bushels originating at TVGG disappeared. Presumably, this is related to the merger between TVGG and WWGG.

Exhibit 7:

# **Comparison of TRAC and Updated Off-River Origins Central Ferry Terminal Association/Port of Whitman**

	% Change	TOTAL BU	USHELS:	BARLEY:		WHEAT:	
Total/by state/by county/by origin	Total	Current	TRAC	Current	TRAC	Current	TRAC
Total	110.83%	9,000,000	4,268,880	3,666,667	1,655,280	5,333,333	2,613,600
Originating in Idaho	-100.00%	0	217,800	0	87,120	0	130,680
Kootenai	-100.00%	0	217,800	0	87,120	0	130,680
Farm-River	-100.00%	0	217,800	0	87,120	0	130,680
Originating in Montana	NA	0	0	0	0	0	0
Originating in North Dakota	NA	0	0	0	0	0	0
Originating in Oregon	NA	0	0	0	0	0	0
Originating in Washington	122.16%	9,000,000	4,051,080	3,666,667	1,568,160	5,333,333	2,482,920
Columbia	-100.00%	0	130,680	0	0	0	130,680
Farm-River	-100.00%	0	130,680	0	0	0	130,680
Garfield	-100.00%	0	2,613,600	0	1,045,440	0	1,568,160
Farm-River	-100.00%	0	2,613,600	0	1,045,440	0	1,568,160
Spokane	2195.68%	5,000,000	217,800	733,333	87,120	4,266,667	130,680
Farm-River	2195.68%	5,000,000	217,800	733,333	87,120	4,266,667	130,680
Whitman	561.16%	7,200,000	1,089,000	2,933,333	435,600	4,266,667	653,400
Farm-River	561.16%	7,200,000	1,089,000	2,933,333	435,600	4,266,667	653,400

Source: All information obtained directly from facility manager

Exhibit 8 provides a comparison of the original TRAC data and the updated version of it.

#### F. ALMOTA ELEVATOR COMPANY/PORT OF ALMOTA

The facility manager at the Port of Almota indicated that the off-river origins and bushels of grains moving through the facility vary significantly from year to year. Nevertheless, he thought that the TRAC snapshot still reflected a representative year of operations. The sole difference he could identify was that the elevator no longer receives grains from Inland Empire Pea Growers Association. He believed however, that an increase in farm origins from Spokane county compensated for the this loss of business.

The study team was careful to substantiate the facility manager's general assertions with specific questions. Some of these questions included inquiries about percentages of originations in different counties, the ratios of wheat to barley, and the percentages of grains received from various country elevators. Throughout, he was unable to identify any other differences between the facility's current operations and the TRAC snapshot.

The facility manager did provide some information concerning several mergers and changes of ownership of country elevators. Inland Pea Growers, for example, was acquired by Cenex Marketing and Supply, which is in the process of merging with Harvest States. Harvest States owns the Lyons Ferry river elevator, where the grains TRAC identified as moving from Inland Empire country elevators to Almota are now being shipped. The facility manager also indicated that the Garfield Union Warehouse Co. had been purchased by the corporate owner of the Port of Almota facility, Almota Elevator Company. This acquisition had not affected the amounts of grains moving from the Garfield facility to the Almota river elevator.

A comparison of the TRAC and updated snapshots of the Port of Almota's elevator operations is provided in *Exhibit 9*. It shows that the TRAC and updated snapshots are almost identical. The sole difference lies in the loss of shipment from IEPG in Spokane county. According to the facility manager, these losses were compensated for by increased farm-to-river shipments out of Spokane county. The overall total volume of grain, therefore, has not changed, reflecting the facility manager's opinion that the TRAC data still fairly represents his operations.

## G. PORTS OF LEWISTON, CLARKSTON, AND WILMA

Grains moving on the Lower Granite pool are loaded onto barges from one of four river elevators. They are the Continental Grain facility at the Port of Lewiston (hereafter, "Continental/Lewiston"); two Lewis & Clark Terminal Association facilities, one at the Port of Lewiston (hereafter, "LCTA/Lewiston"), one at the Port of Clarkston (hereafter, "LCTA/Clarkston"); and the Columbia County Grain Growers facility at the Port of Wilma (hereafter, "Port of Wilma.") With varying success, the study team was able to acquire data from these four operations. The Continental/Lewiston and Port of Wilma facility managers furnished the most information, while the management of the two LCTA facilities were more reticent.

Exhibit 8:

Comparison off TRAC and Updated Off-River Origins
Columbia Grain Growers/Lyons Ferry

		% Change	TOTAL BU	JSHELS:	<b>BARLEY:</b>		WHEAT:	
Cotal/by state/by county/by origin		Total	Current	TRAC	Current	TRAC	Current	TRAC
Originating in Washington		291.90%	5,207,450	1,328,769	1,001,450	56,277	4,206,000	1,272,49
Columbia County		473.31%	4,701,450	820,053	846,450	15,561	3,855,000	804,49
Farm-River	Farm-River	150.71%	1,760,000	702,000	340,000	0	1,420,000	702,00
Touchet Valley Grain Growers	Mckay	-100.00%	0	53,820	0	6,786	0	47,03
Touchet Valley Grain Growers	Whetstone	-34.61%	42,000	64,233	42,000	8,775	0	55,45
Transfer from CGG Country Elevator	Alto	NA	75,250	0	16,250	0	59,000	
Transfer from CGG Country Elevator	Dayton	NA	882,000	0	104,000	0	778,000	
Transfer from CGG Country Elevator	Delaney	NA	99,000	0	2,000	0	97,000	
Transfer from CGG Country Elevator	Huntsville	NA	470,000	0	75,000	0	395,000	
Transfer from CGG Country Elevator	Longs	NA	368,000	0	75,000	0	293,000	
Transfer from CGG Country Elevator	Relief	NA	273,000	0	60,000	0	213,000	
Transfer from CGG Country Elevator	Starbuck	NA	13,200	0	1,200	0	12,000	
Transfer from CGG Country Elevator	Turner	NA	556,000	0	98,000	0	458,000	
Transfer from CGG Country Elevator	Whetstone	NA	163,000	0	33,000	0	130,000	
Walla Walla County		-0.53%	506,000	508,716	155,000	40,716	351,000	468,00
Farm-River	Farm-River	-0.53%	506.000	508.716	155,000	40,716	351.000	468.00

Source: All information obtained from facility manager

Exhibit 9:

# Comparison of Updated and TRAC Off-River Origins Port of Almota

		Percent	TOTAL BUSH	IELS:	BARLEY:		WHEAT:	
Orig - Dest Schedule	Town	Change	Current	TRAC	Current	TRAC	Current	TRAC
Total		0.00%	13,637,248	13,637,248	2,474,649	2,474,649	11,162,599	11,162,599
Originating in Idaho		0.00%	1,650,600	1,650,600	306,540	306,540	1,344,060	1,344,060
Benewah		0.00%	117,900	117,900	0	0	117,900	117,900
Prarie Grain	Tensed	0.00%	117,900	117,900	0	0	117,900	117,900
Latah		0.00%	1,532,700	1,532,700	306,540	306,540	1,226,160	1,226,160
Farm-River	Latah	0.00%	1,532,700	1,532,700	306,540	306,540	1,226,160	1,226,160
Originating in Montana		NA	0	0	0	0	0	0
Originating in North Dakota		NA	0	0	0	0	0	0
Originating in Oregon		NA	0	0	0	0	0	0
Originating in Washington		0.00%	11,986,648	11,986,648	2,168,109	2,168,109	9,818,539	9,818,539
Spokane		0.00%	1,286,289	1,286,289	0	0	1,286,289	1,286,289
Farm-to-River Direct		4.90%	1,286,289	1,226,160	0	0	1,286,289	1,226,160
Inland Empire Pea Growers Assoc.		-100.00%	0	48,732	0	0	0	48,732
Inland Empire Pea Growers Assoc.	Spokane	-100.00%	0	11,397	0	0	0	11,397
Whitman		0.00%	10,700,359	10,700,359	2,168,109	2,168,109	8,532,250	8,532,250
Almota Elevator Company	Mockenema	0.00%	369,420	369,420	133,620	133,620	235,800	235,800
Almota Elevator Company	Union Center	0.00%	314,400	314,400	117,900	117,900	196,500	196,500
Auvil-Warner Co.	Belmont	0.00%	97,385	97,385	16,506	16,506	80,879	80,879
Auvil-Warner Co.	Warner Sidins	0.00%	70,927	70,927	4,172	4,172	66,755	66,755
Farm-to-River Direct		0.00%	6,207,435	6,207,435	858,312	858,312	5,349,123	5,349,123
Inland Empire Milling Co., Inc.	Pine City	0.00%	418,938	418,938	157,200	157,200	261,738	261,738
Inland Empire Milling Co., Inc.	Pleasant Valle	0.00%	209,469	209,469	78,600	78,600	130,869	130,869
Inland Empire Milling Co., Inc.	St. John	0.00%	91,962	91,962	39,300	39,300	52,662	52,662
Inland Empire Pea Growers Assoc.	Garfield	0.00%	30,654	30,654	12,262	12,262	18,392	18,392
Johnson Union Warehouse Co., Inc.	Chambers	0.00%	36,353	36,353	11,790	11,790	24,563	24,563
Palouse Grain Growers, Inc.	Palouse	0.00%	196,736	196,736	66,810	66,810	129,926	129,926
Prairie Grain, Inc.	Garfield	0.00%	226,368	226,368	62,880	62,880	163,488	163,488
Prairie Grain, Inc.	Seltice	0.00%	113,184	113,184	0	0	113,184	113,184
Prairie Grain, Inc.	Tilma	0.00%	188,640	188,640		70,740	117,900	117,900
RMK Farms, Inc.	Oakesdale	0.00%	68,775	68,775		0	00,1.0	68,775
Stateline Processors, Inc.	Tekoa	0.00%	268,812	268,812	56,592	56,592	212,220	212,220
Almota Elevator Company	Crabtree	0.00%	165,060	165,060	,	47,160	117,900	117,900
Wheat Growers of Endicott	Endicott	0.00%	39,300	39,300		15,720	23,580	23,580
Wheat Growers of Endicott	Thera	0.00%	17,685	17,685	5,895	5,895	11,790	11,790
Wheat Growers of Endicott	Winona	0.00%	15,720	15,720		3,930		11,790
Whitman County Growers, Inc.	Albion	0.00%	1,553,136	1,553,136	408,720	408,720	1,144,416	1,144,416

The study team updated the TRAC snapshots of the four river elevator facilities in the Lower Granite Pool as a unit. This approach was taken for three reasons. First, little more than general information was obtained about two of the elevators in the pool (the two LCTA facilities). Second, the original TRAC data seemed to portray the operations of the Port of Lewiston as a whole, not just for the Continental elevator. This complicated the study team's work because the other facility at the Port of Lewiston was one of the LCTA facilities about which little information was obtained. Third, the study team was able to compensate for the information it was unable to collect from LCTA through the use of other information it obtained from Continental/Lewiston. This other information pertained to historical total wheat shipments out of the Port of Lewiston and through the Lower Granite Pool. This additional information allowed the study team to accurately imply fairly detailed, current snapshots of the LCTA operations.

A line-by-line summary of the methodology for the Lower Granite Pool river elevator operations is provided in *Exhibit 10*. A more detailed discussion of the derivation of the updates is provided for each elevator, in the following four subsections.

#### 1. Continental/Lewiston

The Continental/Lewiston facility managers provided robust information to the study team. Among the facilities managers interviewed, they put – by far – the most effort into scrutinizing the TRAC snapshot. They concluded that the data undoubtedly did not represent their operations alone, but the operations of the entire Port of Lewiston, including the LCTA/Lewiston facility. Moreover, some volumes out of southern Idaho were missing from the TRAC snapshot. The facility managers were certain that these volumes had moved to their facility for at least a decade.

Continental/Lewiston provided the study team with detailed, current information concerning the off-river origins of grains shipped to their facility. This included breakdowns by region and farm-to-river verses country elevator origins within each region. It did not include breakdowns of wheat verses barley, but the facility managers confirmed that the TRAC snapshot fairly represented that ratio. The data they provided also did not yield details at the county level or concerning specific country elevators, as that information was considered too sensitive for disclosure. A summary of the information provided to the study team by Continental/Lewiston is provided in *Exhibit 11*.

The facility managers at Continental/Lewiston also provided two other important pieces of data to the study team. The first was total of barge loaded wheat at the Port of Lewiston over the last twenty years. The second concerned the amounts of wheat moving through the Lower Granite Pool annually between 1994 and 1997. This information is compiled by the Walla Walla District. Both these sets of data proved helpful to the study team's efforts to analyze the other facility at the Port of Lewiston (LCTA/Lewiston), because the facility manager there was not as cooperative as the Continental/Lewiston managers.

## Exhibit 10:

# **Summary of TRAC Update Methodology Lower Granite Pool River Elevators**

e #	Orig-Dest Breakdown Schedule	Total bus*	Data Type	Formula	Source	Cross Check
1	LOWER GRANITE POOL TOTAL	48,909,713	Collected	lines 2,3,4	Facility Managers	LGP Total (40,155,3
2	PORT OF LEWISTON TOTAL	25,092,600	Collected	Input	Facility Managers	POL Total (27,256,5
3	PORT OF CLARKSTON TOTAL	2,500,000	Collected	Input	Facility Manager	
1	PORT OF WILMA TOTAL	21,317,113	Collected	Input	Facility Manager	
5	LCTA (both facilities)	19,817,113	Collected	lines 85, 111, 172	Facility Managers	
5	Continental Grain (Port of Lewiston)	9,092,600	Collected	Input	Facility Manager	
7	Idaho Total	4,058,552	Collected	Input	Facility Manager	
3	Idaho Local (north of WA-OR border)	2,029,276	Collected	Input	Facility Manager	
)	Farm-to-River Direct	1,840,340	Collected	Input	Facility Manager	
0	Boundary County	15,293	Estimated	0.831% of line 9	Based on TRAC	
1	Clearwater County	101,973	Estimated	5.541% of line 9	Based on TRAC	
2	Idaho County	206,523	Estimated	11.222% of line 9	Based on TRAC	
3	Latah County	571,389	Estimated	31.048% of line 9	Based on TRAC	
4	Lewis County	63,731	Estimated	3.463% of line 9	Based on TRAC	
5	Nez Perce County	881,431	Estimated	47.895% of line 9	Based on TRAC	
6	Country Elevators	188,936	Collected	Input	Facility Manager	
7	Boundary County	0	Estimated	0% of line 16	Based on TRAC	
8	Clearwater County	1,064	Estimated	0.563% of line 16	Based on TRAC	
9	Idaho County	44,666	Estimated	23.641% of line 16	Based on TRAC	
0	Latah County	66,262	Estimated	35.071% of line 16	Based on TRAC	
1	Lewis County	68,967	Estimated	36.503% of line 16	Based on TRAC	
2	Nez Perce County	7,977	Estimated	4.222% of line 16	Based on TRAC	
3	Southern Counties (I-84 loop)	2,029,276	Collected	Input	Facility Manager	
4	Farm-to-River Direct	1,840,340	Collected	Input	Facility Manager	
5	Bannock County	147,227	Estimated	8.000% of line 24	Based on TRAC	
6	Bingham County	0	Estimated	0% of line 24	Based on TRAC	
7	Bonneville County	588,909	Estimated	32.000% of line 24	Based on TRAC	

Elmore County							
Description   Section   Section	8	•			0% of line 24	Based on TRAC	
Madison County	9	Fremont County			0% of line 24	Based on TRAC	
2         Owyhee County         0         Estimated         0% of line 24         Based on TRAC           3         Power County         0         Estimated         0% of line 24         Based on TRAC           4         Washington County         0         Estimated         0% of line 24         Based on TRAC           5         Country Elevators         188,936         Collected         Input         Facility Manager           6         Bannock County         0         Estimated         0% of line 35         Based on TRAC           7         Bingham County         5,226         Estimated         2,766% of line 35         Based on TRAC           8         Bonneville County         41,099         Estimated         2,766% of line 35         Based on TRAC           9         Elmore County         5,872         Estimated         3,108% of line 35         Based on TRAC           1         Jefferson County         57,773         Estimated         8,701% of line 35         Based on TRAC           2         Madison County         44,033         Estimated         30,578% of line 35         Based on TRAC           3         Owyhee County         4,469         Estimated         1,396,96 fline 35         Based on TRAC           4	0	Jefferson County			48.000% of line 24	Based on TRAC	
Power County	1	Madison County	•		12.000% of line 24	Based on TRAC	
Washington County	2	Owyhee County	0	Estimated	0% of line 24	Based on TRAC	
5         Country Elevators         188,936         Collected         Input         Facility Manager           6         Bannock County         0         Estimated         0% of line 35         Based on TRAC           7         Bingham County         5,226         Estimated         2.766% of line 35         Based on TRAC           8         Bonneville County         41,099         Estimated         21,753% of line 35         Based on TRAC           9         Elmore County         16,439         Estimated         8.701% of line 35         Based on TRAC           1         Jefferson County         57,773         Estimated         30.578% of line 35         Based on TRAC           2         Madison County         44,033         Estimated         23.306% of line 35         Based on TRAC           3         Owyhee County         2,641         Estimated         1,398% of line 35         Based on TRAC           4         Power County         14,091         Estimated         1,398% of line 35         Based on TRAC           5         Washington County         1,761         Estimated         1,398% of line 35         Based on TRAC           6         Washington         1,709,785         Collected         Input         Facility Manager <tr< td=""><td>3</td><td>Power County</td><td>0</td><td>Estimated</td><td>0% of line 24</td><td>Based on TRAC</td><td></td></tr<>	3	Power County	0	Estimated	0% of line 24	Based on TRAC	
6         Bannock County         0         Estimated         0% of line 35         Based on TRAC           7         Bingham County         5,226         Estimated         2,766% of line 35         Based on TRAC           8         Bonneville County         41,099         Estimated         21,753% of line 35         Based on TRAC           9         Elmore County         5,872         Estimated         3,108% of line 35         Based on TRAC           0         Fremont County         16,439         Estimated         3,108% of line 35         Based on TRAC           1         Jefferson County         57,773         Estimated         30,578% of line 35         Based on TRAC           2         Madison County         44,033         Estimated         23,306% of line 35         Based on TRAC           3         Owyhee County         2,641         Estimated         1,398% of line 35         Based on TRAC           4         Power County         14,091         Estimated         1,398% of line 35         Based on TRAC           5         Washington         1,709,785         Collected         Input         Facility Manager           6         Washington         1,709,785         Collected         Input         Facility Manager	4	Washington County	0	Estimated	0% of line 24	Based on TRAC	
7         Bingham County         5,226         Estimated         2.766% of line 35         Based on TRAC           8         Bonneville County         41,099         Estimated         21.753% of line 35         Based on TRAC           9         Elmore County         5,872         Estimated         3.108% of line 35         Based on TRAC           0         Fremont County         16,439         Estimated         8.701% of line 35         Based on TRAC           1         Jefferson County         57,773         Estimated         30.578% of line 35         Based on TRAC           2         Madison County         44,033         Estimated         23.306% of line 35         Based on TRAC           3         Owyhee County         2,641         Estimated         1.398% of line 35         Based on TRAC           4         Power County         14,091         Estimated         1.398% of line 35         Based on TRAC           5         Washington County         1,761         Estimated         0.932% of line 35         Based on TRAC           6         Washington County         1,761         Estimated         0.932% of line 35         Based on TRAC           7         Farm-to-River Direct         1,063,361         Collected         Input         Facility Manag	5	Country Elevators	188,936	Collected	Input	Facility Manager	
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9         Elmore County         5,872         Estimated         3.108% of line 35         Based on TRAC           0         Fremont County         16,439         Estimated         8.701% of line 35         Based on TRAC           1         Jefferson County         57,773         Estimated         30.578% of line 35         Based on TRAC           2         Madison County         44,033         Estimated         23.306% of line 35         Based on TRAC           3         Owyhee County         14,091         Estimated         1.398% of line 35         Based on TRAC           4         Power County         14,091         Estimated         7.388% of line 35         Based on TRAC           5         Washington County         1,761         Estimated         0.932% of line 35         Based on TRAC           6         Washington County         1,761         Estimated         0.932% of line 35         Based on TRAC           6         Washington County         1,709,785         Collected         Input         Facility Manager           7         Farm-to-River Direct         1,063,361         Collected         Input         Facility Manager           8         Spokane County         1,063,361         Estimated         100% of line 47         Based on TRAC </td <td>7</td> <td>Bingham County</td> <td>5,226</td> <td>Estimated</td> <td>2.766% of line 35</td> <td>Based on TRAC</td> <td></td>	7	Bingham County	5,226	Estimated	2.766% of line 35	Based on TRAC	
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3         Montana         2,453,821         Collected         Input         Facility Manager           4         Farm-to-River Direct         1,363,501         Collected         Input         Facility Manager           5         Central         263,491         Estimated         19.325% of line 54         Based on TRAC           6         Northeast         68,980         Estimated         5.059% of line 54         Based on TRAC           7         Northern         563,592         Estimated         41.334% of line 54         Based on TRAC	1	Spokane County	37,609	Estimated	94.182% of line 50	Based on TRAC	Facility manager rev
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6         Northeast         68,980 Estimated         5.059% of line 54         Based on TRAC           7         Northern         563,592 Estimated         41.334% of line 54         Based on TRAC	4	Farm-to-River Direct	1,363,501	Collected	Input	Facility Manager	
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	6	Northeast	68,980	Estimated	5.059% of line 54	Based on TRAC	
South Central 286,732 Estimated 21.029% of line 54 Based on TRAC	7	Northern	563,592	Estimated	41.334% of line 54	Based on TRAC	
	8	South Central	286,732	Estimated	21.029% of line 54	Based on TRAC	

9	Southeast	78,464 Estimat	ed 5.755% of line 54	Based on TRAC
0	Western	102,242 Estimat	ed 7.498% of line 54	Based on TRAC
51	Country Elevators	1,090,320 Collecte	d Input	Facility Manager
2	Central	210,700 Estimat	ed 19.325% of line 61	Based on TRAC
13	Northeast	55,159 Estimat	ed 5.059% of line 61	Based on TRAC
4	Northern	450,675 Estimat	ed 41.334% of line 61	Based on TRAC
5	South Central	229,285 Estimat	ed 21.029% of line 61	Based on TRAC
6	Southeast	62,744 Estimat	ed 5.755% of line 61	Based on TRAC
7	Western	81,757 Estimat	ed 7.498% of line 61	Based on TRAC
i8	Oregon	211,941 <b>Collect</b>	<b>d</b> Input	Facility Manager
i9	Farm-to-River Direct (Wallowa County)	23,797 <b>Collect</b>	<b>d</b> Input	Facility Manager
0	Country Elevators (Wallowa County)	188,144 <b>Collect</b>	<b>d</b> Input	Facility Manager
'1	North Dakota	521,580 <b>Collect</b>	d Input	Facility Manager
		0 0 7	J I	Facility Managan
2	Farm-to-River Direct	0 Collecte	<b>d</b> Input	Facility Manager
'2 '3	Farm-to-River Direct Country Elevators	521,580 Collecte		Facility Manager
			d Input	
'3	Country Elevators	521,580 <b>Collect</b>	d Input ed 20.089% of line 73	Facility Manager
'3 '4	Country Elevators Northwest	521,580 <b>Collect</b> 104,779 Estimat	d Input ed 20.089% of line 73 ed 3.008% of line 73	Facility Manager Based on TRAC
'3 '4 '5	Country Elevators  Northwest  North Central	521,580 <b>Collect</b> 104,779 Estimat 15,690 Estimat	d Input 20.089% of line 73 ed 3.008% of line 73 ed 0.129% of line 73	Facility Manager Based on TRAC Based on TRAC
'3 '4 '5 '6	Country Elevators Northwest North Central Northeast	521,580 <b>Collecto</b> 104,779 Estimat 15,690 Estimat 675 Estimat	d Input ed 20.089% of line 73 ed 3.008% of line 73 ed 0.129% of line 73 ed 20.662% of line 73	Facility Manager Based on TRAC Based on TRAC Based on TRAC
'3 '4 '5 '6 '7	Country Elevators Northwest North Central Northeast West Central	521,580 Collector 104,779 Estimat 15,690 Estimat 675 Estimat 107,770 Estimat	d Input 20.089% of line 73 2d 3.008% of line 73 2d 0.129% of line 73 2d 20.662% of line 73 2d 4.971% of line 73	Facility Manager Based on TRAC Based on TRAC Based on TRAC Based on TRAC
'3 '4 '5 '6 '7 '8	Country Elevators Northwest North Central Northeast West Central Central	521,580 Collector 104,779 Estimat 15,690 Estimat 675 Estimat 107,770 Estimat 25,927 Estimat	d Input 20.089% of line 73 2d 3.008% of line 73 2d 0.129% of line 73 2d 20.662% of line 73 2d 4.971% of line 73 2d 1.302% of line 73	Facility Manager Based on TRAC
'3 '4 '5 '6 '7 '8 '9	Country Elevators  Northwest  North Central  Northeast  West Central  Central  East Central	521,580 Collector 104,779 Estimat 15,690 Estimat 675 Estimat 107,770 Estimat 25,927 Estimat 6,791 Estimat	d Input ed 20.089% of line 73 ed 3.008% of line 73 ed 0.129% of line 73 ed 20.662% of line 73 ed 4.971% of line 73 ed 1.302% of line 73 ed 40.084% of line 73	Facility Manager Based on TRAC
'3 '4 '5 '6 '7 '8 '9	Country Elevators Northwest North Central Northeast West Central Central East Central Southwest	521,580 Collector 104,779 Estimat 15,690 Estimat 675 Estimat 107,770 Estimat 25,927 Estimat 6,791 Estimat 209,068 Estimat	d Input ed 20.089% of line 73 ed 3.008% of line 73 ed 0.129% of line 73 ed 20.662% of line 73 ed 4.971% of line 73 ed 4.084% of line 73 ed 40.084% of line 73 ed 9.755% of line 73	Facility Manager Based on TRAC
3  4  5  6  7  8  9  8  9  1	Country Elevators Northwest North Central Northeast West Central Central East Central Southwest South Central	521,580 Collector 104,779 Estimat 15,690 Estimat 675 Estimat 107,770 Estimat 25,927 Estimat 6,791 Estimat 209,068 Estimat 50,880 Estimat	d Input 20.089% of line 73 20.089% of line 73 20.0129% of line 73 20.0662% of line 73	Facility Manager Based on TRAC
'3 '4 '5 '6 '7 '8 '9 30 31 32	Country Elevators Northwest North Central Northeast West Central Central East Central Southwest South Central Utah	521,580 Collecte 104,779 Estimat 15,690 Estimat 675 Estimat 107,770 Estimat 25,927 Estimat 6,791 Estimat 209,068 Estimat 50,880 Estimat 136,921 Collecte	d Input 20.089% of line 73 20.089% of line 73 20.089% of line 73 20.062% of line 73 20.0662% of line 73 20.0662% of line 73 20.064% of line 73 20.066% of line 73 20.06% of line 73 20.	Facility Manager Based on TRAC Facility Manager

85	LCTA/Port of Lewiston	16,000,000 Collected	Input	Facility Manager
86	Idaho	9,600,000 <b>Collected</b>	60.0% of line 85	Facility Manager
87	Bingham County Country Elevators	800,000 Collected	5.0% of line 85	Facility Manager
88	Lewiston Area Counties	8,800,000 Collected	55.0% of line 85	Facility Manager
89	Farm-to-River Direct	46,199 Estimated		Analysis of POL Total
90	Boundary County	2,146 Estimated	4.645% of line 89	Based on TRAC
91	Idaho County	5,806 Estimated	12.568% of line 89	Based on TRAC
92	Latah County	9,214 Estimated	19.945% of line 89	Based on TRAC
93	Lewis County	14,567 Estimated	31.530% of line 89	Based on TRAC
94	Nez Perce County	14,465 Estimated	31.311% of line 89	Based on TRAC
95	Country Elevators	8,753,801 Estimated		Analysis of POL Total
96	Boundary County	0 Estimated	0% of line 95	Based on TRAC
97	Idaho County	3,187,522 Estimated	36.413% of line 95	Based on TRAC
98	Latah County	2,119,733 Estimated	24.215% of line 95	Based on TRAC
99	Lewis County	3,446,547 Estimated	39.372% of line 95	Based on TRAC
100	Nez Perce County	0 Estimated	0% of line 95	Based on TRAC
101	Montana	232,548 Estimated		Analysis of POL Total
102	North Dakota	580,898 Estimated		Analysis of POL Total
103	Oregon	430,979 Estimated		Analysis of POL Total
104	Farm-to-River Direct	0 Estimated		Analysis of POL Total
105	Country Elevators	430,979 Estimated		Analysis of POL Total
106	Washington	5,155,575 Estimated		Analysis of POL Total
107	Farm-to-River Direct	0 Estimated		Analysis of POL Total
108	Country Elevators	5,155,575 Estimated		Analysis of POL Total
109	Garfield County	2,751,474 Estimated	53.369% of line 108	Based on TRAC
110	Whitman County	2,404,101 Estimated	46.631% of line 108	Based on TRAC

11	LCTA/Port of Clarkston	2,500,000	Collected	Input	Facility Manager
12	Washington (Asotin County)	500,000	Collected	Input	Facility Manager
13	Montana & North Dakota (all red wheat)	2,000,000	Collected	Input	Facility Manager
14	Montana	1,311,960	Estimated	65.598 of line 113	Based on TRAC
15	Central	253,531	Estimated	19.325% of line114	Based on TRAC
16	North East	66,372	Estimated	5.059% of line 114	Based on TRAC
17	Northern	542,287	Estimated	41.334% of line 114	Based on TRAC
18	South Central	275,893	Estimated	21.029% of line 114	Based on TRAC
19	South East	75,499	Estimated	5.755% of line 114	Based on TRAC
20	Western	98,378	Estimated	7.499% of line 114	Based on TRAC
21	North Dakota	688,040	Estimated	34.402% of line 113	Based on TRAC
22	Northwest	138,219	Estimated	20.089% of linen 121	Based on TRAC
23	North Central	20,697	Estimated	3.008% of line 121	Based on TRAC
24	Northeast	891	Estimated	0.129% of line 121	Based on TRAC
25	West Central	142,166	Estimated	20.662% of line 121	Based on TRAC
26	Central	34,201	Estimated	4.971% of line 121	Based on TRAC
27	East Central	8,957	Estimated	1.302% of line 121	Based on TRAC
28	Southwest	275,791	Estimated	40.084% of line 121	Based on TRAC
<u>29</u>	South Central	67,118	Estimated	9.755% of line 121	Based on TRAC

20	DODT OF WILMA (Columbia Ctr. CC)	20,000,000	Callagted	Innut	Engility Managan	
	PORT OF WILMA (Columbia Cty GG)  Idaho	20,000,000 9,686,000		<u>Input</u> 48.43% of line 130	Facility Manager	
31	Nez Perce County	2,184,193		22.55% of line 131	Facility Manager Facility Manager	
32	•	2,184,193 1,575,912		16.27 % of line131	Facility Manager	
33	Lewis County	1,575,912			Facility Manager Facility Manager	
34	Idaho County  Jefferson County		Calculated	16.27% of line 131	, ,	Facility Manager ray
35	•			11.13% of line 131	Based on TRAC	Facility Manager rev
36	Benewah County	•	Calculated	7.58% of line 131	Based on TRAC	Facility Manager rev
37	Washington County	•	Calculated	6.34% of line 131	Based on TRAC	Facility Manager rev
38	Latah County	•	Calculated	5.51% of line 131	Based on TRAC	Facility Manager rev
<u>39</u>	Bingham County		Calculated	3.72% of line 131	Based on TRAC	Facility Manager rev
40	Canyon County	•	Calculated	3.44% of line 131	Based on TRAC	Facility Manager rev
41	Elmore County	•	Calculated	2.20% of line 131	Based on TRAC	Facility Manager rev
<u>42</u>	Ada County		Calculated	1.38% of line 131	Based on TRAC	Facility Manager rev
43	Owhyee County		Calculated	1.10% of line 131	Based on TRAC	Facility Manager rev
14	Cassia County		Calculated	0.69% of line 131	Based on TRAC	Facility Manager rev
<u>45</u>	Bonneville County		Calculated	0.55% of line 131	Based on TRAC	Facility Manager rev
46	Twin Falls County		Calculated	0.41% of line 131	Based on TRAC	Facility Manager rev
47	Gem County		Calculated	0.30% of line 131	Based on TRAC	Facility Manager rev
48	Jerome County		Calculated	0.28% of line 131	Based on TRAC	Facility Manager rev
49	Madison County		Calculated	0.28% of line 131	Based on TRAC	Facility Manager rev
50	Montana	2,778,000		13.89% of line 130	Facility Manager	
51	Central		Estimated	19.325% of line 150	Based on TRAC	Facility Manager rev
52	North East		Estimated	5.059% of line 150	Based on TRAC	Facility Manager rev
53	Northern	1,148,259		41.334% of line 150	Based on TRAC	Facility Manager rev
54	South Central		Estimated	21.029% of line 150	Based on TRAC	Facility Manager rev
55	South East		Estimated	5.755% of line 150	Based on TRAC	Facility Manager rev
56	Western		Estimated	7.498% of line 150	Based on TRAC	Facility Manager rev
57	Washington	5,518,000		Input	Facility Manager (est.)	
58	Asotin, Farm-to-River Direct	1,379,500		Input	Facility Manager (est.)	
59	Whitman County Farm-to-River	2,781,250		Input	Facility Manager (est.)	
50	Whitman County Country Elevators	1,357,250		Input	Facility Manager (est.)	
51	Oregon		Collected	Input	Facility Manager	
52	Wallowa county, Farm-to-River Direct		Collected	Input	Facility Manager	
53	North Dakota	1,484,000	Collected	7.42% of line 130	Facility Manager	
54	Northwest	298,118	Estimated	20.089% of line 163	Based on TRAC	Facility Manager rev
55	North Central	44,641	Estimated	3.008% of line 163	Based on TRAC	Facility Manager rev
56	Northeast		Estimated	0.129% of line 163	Based on TRAC	Facility Manager rev
57	West Central	306,630	Estimated	20.662% of line 163	Based on TRAC	Facility Manager rev
58	Central	73,767	Estimated	4.971% of line 163	Based on TRAC	Facility Manager rev
59	East Central	19,320	Estimated	1.302% of line 163	Based on TRAC	Facility Manager rev
70	Southwest	594,840	Estimated	40.084% of line 163	Based on TRAC	Facility Manager rev
71	South Central	144,763	Estimated	9.755% of line 163	Based on TRAC	Facility Manager rev
72 5	Schulz Brokered Grains	1,317,113	Collected	Input	Facility Manager	
73	Montana Elevators	823,196	Collected	62.5% of line 172	Facility Manager	
, 0				37.5% of line 172		

**Note:** Splits between bushels of wheat and barlev are not shown here. They were based on TRAC data. unless a facility manager provided information concerning the split.

Exhibit 11:
Information Provided by Continental/Lewiston

	Farm-River	Elevator
Total Grains*	4,753,237	4,309,079
Southern Idaho**	325,317	1,673,675
Montana	1,363,501	1,090,320
Washington	1,063,361	1,709,785
Oregon	23,797	211,941
Utah	136,921	0
North Dakota	0	521,580
Idaho Local***	1,840,340	2,029,276

<sup>\*</sup> Does not include grains purchased by Continental through a broker from farms in North Dakota and Montana. These grains are moved through another river elevator.

<sup>\*\* &</sup>quot;Southern Idaho" means all counties in the southern portion of the state, generally between the areas of Boise and Idaho Falls.

<sup>\*\*\* &</sup>quot;Idaho local" generally means all counties in the northern tip of the state, generally in the western portion of that tip, extending northward from the vicinity of Lewiston to the Canadian border.

Based on the information collected, he study team was able to develop a comprehensive updated snapshot of the Continental/Lewiston operation. The updated regional totals were used as controls and were broken down among counties using ratios derived from the TRAC data. The same approach was used in deriving totals for particular off-river origins and wheat to barley breakdowns for each. The breakdowns between farm-to-river and elevator originations were particularly useful in this effort.

Exhibit 12 provides the updated snapshot of the Continental/Lewiston facility's operations. No comparison is made to the original TRAC data, because it reflected operations at both elevators at the Port of Lewiston. In the next subsection, comparison of the TRAC and updated snapshots for the entire Port of Lewiston (both the Continental and LCTA facilities) is provided in the next subsection, in Exhibit 16.

The facility managers at Continental/Lewiston also provided extensive information in terms of the locational patterns of the country elevators with whom they transact business. Like the other facility managers, they were unable to identify instances where new elevators had been built of existing elevators had ceased to function. They did, however, point out several elevators that were under new ownership. None of the consolidations or mergers they identified substantially impacted the volume of grains moving to the Continental/Lewiston facility from the country elevator in question.

#### 2. Lewis & Clark Terminal Association/Ports of Lewiston and Clarkston

Lewis & Clark operates to facilities in the Lower Granite Pool; one at the Port of Lewiston and one at the Port of Clarkston. Unfortunately, the manager of both of these facilities did not cooperate extensively with the study team's efforts to update the TRAC data. He did, however, furnish some precise, if general, information. It is provided in *Exhibit 13*. The following two subsections detail the derivation of the updated snapshot for each LCTA river elevator.

## 1. LCTA/Lewiston

The totals for the LCTA/Lewiston operations were developed based on four sources of information. They were the following.

- The bushels totals provided by the facility manager,
- The detailed information provided to the study team concerning the Continental/Lewiston operations,
- The total for grains shipped through the Port of Lewiston in 1994, 1995, 1996 and 1997,
  - and -
- The TRAC data.

Exhibit 12:

# **Updated Off-River Origins Continental/Port of Lewiston**

		BUSHELS:		
Orig-Dest Schedule	Town	Total	Barley	Wheat
Total		9,092,599	512,777	8,579,822
Originating in Idaho		4,058,551	34,729	4,023,822
Bannock County		147,227	0	147,227
Farm-River	Farm-River	147,227	0	147,227
Bingham County		5,226	0	5,226
Firth Mill And Elevator	Firth	235	0	235
Modern Mills Rockford, Inc.	Blackfoot2	4,991	0	4,991
Bonneville County		630,008	0	630,008
Farm-River	Farm-River	588,909	0	588,909
J, Thomas Grain & Livestock, Inc.	Idaho Falls3	41,099	0	41,099
Boundary County		15,293	0	15,293
Farm-River	Farm-River	15,293	0	15,293
Clearwater County		103,037	532	102,505
Farm-River	Farm-River	101,973	0	101,973
Nezperce Rochdale Co.	Greer	1,064	532	532
Elmore County		5,872	0	5,872
Farmers Warehouse, Inc.	Mountain Home1	5,872	0	5,872
Fremont County		16,439	0	16,439
Reinke Grain Co.	Ashton	11,742	0	11,742
Trost Feed And Seed Co.	St. Anthony	4,697	0	4,697
Idaho County		251,189	4,254	246,935
Farm-River	Farm-River	206,523	0	206,523
Cottonwood Elevator Co.	Cottonwood	4,786	0	4,786
Cottonwood Elevator Co.	Cottonwood	4,786	0	4,786
Lewiston Grain Growers, Inc.	Ferdinand	10,103	2,127	7,976
Lewiston Grain Growers, Inc.	Ferdinand	10,103	2,127	7,976
Union Warehouse & Supply Co.	Fenn	7,444	0	7,444
Union Warehouse & Supply Co.	Fenn	7,444	0	7,444
Jefferson County		941,136	0	941,136
B & J Elevators, Inc.	Ririe1	24,659	0	24,659
Farm-River	Farm-River	883,363	0	883,363
Ririe Grain & Feed Co-Op, Inc.	Ririe2	22,546	0	22,546
Roberts Elevator, Inc.	Roberts	10,568	0	10,568
Latah County		637,651	10,959	626,692
Farm-River	Farm-River	571,389	0	571,389
Geneses Union Warehouse Co.	Genesee	23,663	2,393	21,270
Kendrickrochdale Co., Inc.	Kendrick1	298	32	266
Latah County Grain Growers, Inc.	Deary	25,285	5,344	19,941
Lewiston Grain Growers. Inc.	Kendrick2	13.294	2.659	10.635

# Exhibit 13: Information Provided by LCTA

LCTA Total	18.0 - 20.0 m	bus Grains
Port of Clarkston	16,000,000	bus grains
Port of Lewiston	2.0 -2.5 m	bus Grains
Originating in Asotin County, WA	500,000	bus Barley
Originating in Montana/North Dakota	1.5 - 2.5 m	bus Wheat

The first step involved checking the accuracy of the total provided by the LCTA facility manager against the Continental/Lewiston and Port of Lewiston totals. Lewiston/Continental provided data indicating that 9,092,600 bushels were shipped though its facility in 1997. The LCTA/Lewiston facility indicated that in a representative year, about 16,000,000 bushels move through its facility. Assuming that 1997 was a representative year for Continental/Lewiston, 25,092,600 bushels move through the Port in a representative year, according to the facilities managers interviewed by the study team. This compares favorably with the total maintained by the Port itself. *Exhibit 14* compares the total grains moving through the Port for the years 1990 through 1997, with this total.

The study team concluded that the Port of Lewiston totals were consistent with the data collected by the study team, particularly because the last two years of data are within ten percent of the estimated total. This cross-check provided an important level of confidence, requisite to the next step of the methodology, in which the LCTA/Lewiston breakdowns were implied using the Continental/Lewiston totals.

The most critical factor in developing the LCTA/Lewiston snapshot was the knowledge obtained during interviews with Continental/Lewiston – that the TRAC snapshot represented the operations of the entire Port, not just the Continental facility. Conceptually then, the study team recognized that by backing the Continental/Lewiston figures out of the Port figures, it could imply the more detailed LCTA/Lewiston figures.

This implication was accomplished by the following steps. First, the study team scaled the original TRAC data for the Port to reflect more recent total shipments to the facility. This was done with reference to the changes in the known totals of volumes moving through the Port, which was provided to the study team by Continental/Lewiston. This data was then reorganized to match the form of the data provided by Continental/Lewiston, which featured total grains broken down by farm-to-river and elevator origins, then further broken down by regional origin. The regions were Southern Idaho, Montana, Washington, Oregon, Utah, North Dakota, and Northern Idaho. Then the more detailed data concerning shipments to the Port of Lewiston were subtracted from the re-scaled TRAC data at the regional level provided by Continental. The balance was assumed to represent the operations of the LCTA/Lewiston facility. The regional totals were distributed to specific counties using the original TRAC data. The ratios of farm-to-river-direct to country elevator originations were held constant at the regional level. The study team limited this implication process to ascertaining county level data. *Exhibit 15* provides the implied snapshot of the LCTA/Lewiston elevator's operations.

This process resulted in a reasonably accurate, implied snapshot of the LCTA/Lewiston operations. Like all of the updated data developed by the study team, the higher the level at which it is analyzed, the more accurate it is. The overall bushels totals are probably very accurate, as they are based on information obtained from the facility manager. The state totals also are very accurate, because the facility manager provided some information at this level, and because the state totals for the Continental facility are accurate.

Exhibit 14: Comparison of Port of Lewiston Reported and Updated Totals (25,092,600 bus)

Year	Reported Total	% of UpdatedTotal*
1990	32,567,859	29.8%
1991	29,810,889	18.8%
1992	23,070,098	-8.1%
1993	22,355,691	-10.9%
1994	30,621,137	22.0%
1995	36,143,387	44.0%
1996	25,793,262	2.8%
1997	27,412,431	9.2%
Ave. $-$ all years	28,471,844	13.5%
Ave. – 1996-97	26,602,847	6.0%
Ave. of Abs. % diffs.		18.2%

<sup>\*</sup> Updated total for Port of Lewiston is 25,092,600 bushels.

### Exhibit 15:

# Implied Off-River Origins LCTA/Port of Lewiston

Orig-Dest Schedule	Bushels
Total	16,000,000
Originating in Idaho	9,600,000
Bingham County (country elevators only)	800,000
Boundary County	2,146
Farm-River	2,146
Country Elevators	0
Idaho County	3,193,328
Farm-River	5,806
Country Elevators	3,187,522
Latah County	2,128,947
Farm-River	9,214
Country Elevators	2,119,733
Lewis County	3,461,113
Farm-River	14,567
Country Elevators	3,446,547
Nez Perce County	14,465
Farm-River	14,465
Country Elevators	0
Originating in Montana	232,548
Originating in North Dakota	580,898
Originating in Oregon	430,979
Wallowa County (all country elevators)	430,979
Originating in Washington	5,155,575
Garfield County (all country elevators)	2,751,474
Whitman County (all country elevators)	2,404,101

In order to understand how the operations at the LCTA/Lewiston and Continental/Lewiston have changed since the original TRAC snapshot, it is necessary to sum the updated snapshots for each facility. This is because the original TRAC snapshot reflects operations of the entire Port. A comparison of this snapshot to the summed data for both Port of Lewiston facilities is provided in *Exhibit 16*.

### 2. <u>LCTA/Clarkston</u>

The LCTA/Clarkston snapshot is also based on the precise but general information provided by the facility manager. He indicated that the only grains moving through the facility were either barley from Asotin County, Washington, or Wheats originating in Montana and North Dakota. Using these totals as controls, the study team distributed the wheat among the regions of Montana and North Dakota indicated in the TRAC data by reference to regional ratios for each state implicit in the TRAC data. *Exhibit 17* provides the updated snapshot of the LCTA/Clarkston facility's operations. The original TRAC data is provided because it differs so much from the original TRAC snapshot that no meaningful comparison can be made.

The Clarkston updated snapshot differs significantly from the TRAC snapshot. The study team attributed this to the fact that the two LCTA facilities in the Lower Granite Pool are just across the Snake River from one another and probably operate in tandem. The facility manager generally agreed with the validity of this assumption, although – as already discussed – he did not invest much time in looking over the original TRAC data, opting instead to provide the study team with precise but general information. Whether or not the assumed explanation is valid does not affect the study team's confidence in the totals presented in the updated snapshot. They were derived directly from the facility manager, and both the pool totals of the updates of the four facilities in the Lower Granite Pool, as well as the Port of Lewiston totals for the two facilities there, are consistent with the Pool totals and Port totals that the study team obtained from Continental/Lewiston.

#### 3. Port of Wilma

The data collected from the Port of Wilma was extensive, perhaps the most extensive of all the facilities. This allowed the study team to develop a highly accurate updated snapshot of the Port of Wilma's operations. The facility manager provided the study team with the following pieces of information.

- The off-river origins and amounts of grains moving through the facility have not changed significantly over the last ten years,
- Currently, around 20 million bushels of grains move through the facility,
- Of these, 16 million are wheats, and 4 million are barley,

Exhibit 17:
Updated Snapshot of Off-River Origins
Port of Clarkston

Orig-Dest Breakdown Schedule	Total bus	Barley	Wheat
LCTA/Port of Clarkston Total	2,500,000	0	2,000,000
Washington (Asotin County)	500,000	500,000	0
Montana	1,311,960	0	1,311,960
Central	253,531	0	253,531
North East	66,372	0	66,372
Northern	542,287	0	542,287
South Central	275,893	0	275,893
South East	75,499	0	75,499
Western	98,378	0	98,378
North Dakota	688,040	0	688,040
Northwest	138,219	0	138,219
North Central	20,697	0	20,697
Northeast	891	0	891
West Central	142,166	0	142,166
Central	34,201	0	34,201
East Central	8,957	0	8,957
Southwest	275,791	0	275,791
South Central	67,118	0	67,118

- The percentages of grains originating in the five states have not changed significantly,
- Total grains originating in Nezperce county, Idaho as a percent of total grains originating in Idaho, is now 22.55% instead of 27.55%.
- Total grains originating in Lewis county, Idaho as a percent of total grains originating in Idaho, is now 16.27% instead of 13.77%.
- Total grains originating in Idaho county, Idaho as a percent of total grains originating in Idaho, is now 16.27% instead of 13.77%.
- The totals of grains originating in all other Idaho counties, as a percent of the Idaho total, is still accurate,
- Seventy-five percent of the grains originating in Washington state and moving through the facility originate in Whitman county,
- Twenty-five percent of the grains originating in Washington state and moving through the facility originate in Asotin county,
- Approximately five percent of the grains originating in Whitman and Asotin counties, Washington are barley,
- The regional percentages of grain originations for North Dakota and Montana are still accurate,
- The ratio of farm-to-river direct shipments and country elevator shipments has changed from 3-to-1 to 3-to-2.

The overall volume of grains moving through the Wilma elevator is 53.3 percent greater in the update than in the original TRAC data. This increase is fairly uniformly spread among the various counties and off-river origins in the original TRAC data. *Exhibit 18* provides a comparison of the original TRAC data to the updated, current snapshot.

Exhibit 18:

### Comparison of TRAC and Updated Off-River Origins Port of Wilma

		Percent	TOTAL BUSH	IELS:	BARLEY:		WHEAT:	
Orig-Dest	Town	Change	Current	TRAC	Current	TRAC	Current	TRAC
Total		53.3%	20,000,000	13,042,723	833,663	513,135	19,166,343	12,529,588
Originating in Idaho		53.4%	9,686,000	6,316,200	333,727	217,500	9,352,278	6,098,700
Ada		53.7%	133,677	87,000	0	0	133,677	87,000
Farm-River		53.6%	133,667	87,000	0	0	133,667	87,000
Benewah		53.4%	734,199	478,500	333,727	217,500	400,472	261,000
Prarie Grain	Tensed	53.4%	734,199	478,500	333,727	217,500	400,472	261,000
Bingham		53.4%	360,319	234,900	0	0	360,319	234,900
Farm-River		53.4%	133,451	87,000	0	0	133,451	87,000
Modern Mills Rockford, Inc.	Blackfoot	53.4%	226,868	147,900	0	0	226,868	147,900
Bonneville		53.1%	53,273	34,800	0	0	53,273	34,800
Farm-River		53.1%	53,273	34,800	0	0	53,273	34,800
Canyon		53.2%	333,198	217,500	0	0	333,198	217,500
Farm-River		53.2%	333,198	217,500	0	0	333,198	217,500
Cassia		53.6%	66,833	43,500	0	0	66,833	43,500
Farm-River		53.6%	66,833	43,500	0	0	66,833	43,500
Elmore		53.1%	213,092	139,200	0	0	213,092	139,200
Farm-River		53.1%	213,092	139,200	0	0	213,092	139,200
Gem		51.8%	29,058	19,140	0	0	29,058	19,140
Farm-River		51.8%	29,058	19,140	0	0	29,058	19,140
Idaho		81.1%	1,575,912	870,000	0	0	1,575,912	870,000
Farm-River		81.1%	1,575,912	870,000	0	0	1,575,912	870,000
Jefferson		53.4%	1,078,052	702,960	0	0	1,078,052	702,960
Farm-River		53.4%	53,369	34,800	0	0	53,369	34,800
Ririe Grain & Feed Co-Op, Inc.	Ririe	53.4%	1,024,683	668,160	0	0	1,024,683	668,160
Jerome		55.9%	27,121	17,400	0	0	27,121	17,400
Farm-River		55.9%	27,121	17,400	0	0	27,121	17,400
Latah		53.4%	533,699	348,000	0	0	533,699	348,000
Farm-River		53.4%	533,699	348,000	0	0	533,699	348,000
Lewis		81.1%	1,575,912	870,000	0	0	1,575,912	870,000
Farm-River		81.1%	1,575,912	870,000	0	0	1,575,912	870,000
Madison		55.9%	27,121	17,400	0	0	27,121	17,400
Farm-River		55.9%	27,121	17,400	0	0	27,121	17,400
Nezperce		25.5%	2,184,193	1,740,000	0	0	2,184,193	1,740,000
Farm-River		25.5%	2,184,193	1,740,000	0	0	2,184,193	1,740,000
Owyhee		53.1%	106,546	69,600	0	0	106,546	69,600
Farm-River		53.1%	106,546	69,600	0	0	106,546	69,600
Twin Falls		52.2%	39,713	26,100	0	0	39,713	26,100
Farm-River		52.2%	39,713	26,100	0	0	39,713	26,100
Washington		53.4%	614.092	400.200	0	0	614.092	400.200

### SECTION III: STUDY FINDINGS

This section will report on the study team's findings as to the three issues it considered. These were: (1) how well the TRAC data reflects the current operations of the river elevators studied, (2) the usefulness of the updated TRAC, and (3) changes in locational patterns of country elevators. *Subsection A* will discuss both issues related to the TRAC data. *Subsection B* will discuss the locational patterns of the country elevators.

#### A. THE TRAC DATA

As discussed earlier, the study team's approach to evaluating the usefulness of the TRAC data was to conduct interviews with the river elevator operators, use the information they provided to update the original TRAC data as precisely as possible, then compare the updated information to the TRAC data. The development of the updated data was described in *Section II*. This subsection will present the comparison between the original TRAC data and the updated data, then render a conclusions concerning the validity of the original TRAC data, vis-à-vis current movement patterns, as well as the usefulness of the updated data as an alternative to the original TRAC data.

Exhibit 19 shows that the current total bushels moving through the river elevators studied exceeds the TRAC bushels total by 20.3 percent. This increase, however, has not been geographically uniform. It is driven largely by a 42.1 percent increase in grains originating in Washington, which originates more grains barged on the Snake than any other state. The total originating in Idaho, on the other hand, decreased by 25.5 percent. Exhibit 20 provides a graphical comparison of the of the updated to the TRAC data, by state.

Exhibit 21 sheds some light on the diminished volume of grains originating from Idaho. The four counties in the Lewiston area – Idaho, Latah, Lewis, and Nezperce – each experienced significant declines in total bushels received by the operators studied. This discrepancy is related to changes among the operations in the Lower Granite Pool. The total bushels moving through the Port of Lewiston shrank by four million bushels, or 15.5%.

It is possible that this decline simply reflects the fact that the 1997-98 data – which largely drove the update to the TRAC data – may reflect a slow year. If so, this would contradict the opinions of Continental/Lewiston managers interviewed. Nevertheless, *Exhibit 22* demonstrates this possibility graphically, by charting the actual totals of bushels moving through the Port of Lewiston between 1990 and 1997, against the TRAC estimated total and the study team's update of the TRAC data. The exhibit demonstrates that the TRAC data may better reflect a representative year over the range of actual data for those years. On the other hand, more recent actual levels (1996 and 1997) more closely resemble the updated totals. In any case both the TRAC and updated snapshot

Exhibit 19: Changes in Off-River Origins, by State

% Change	Current bus (m)	TRAC bus (m)
20.3%	123.35	102.54
-25.5%	27.26	36.60
93.5%	6.78	3.50
59.1%	3.27	2.06
59.3%	1.18	0.74
additional	0.14	0.00
42.1%	84.73	59.64
	20.3% -25.5% 93.5% 59.1% 59.3% additional	20.3% 123.35 -25.5% 27.26 93.5% 6.78 59.1% 3.27 59.3% 1.18 additional 0.14

Exhibit 20: Comparison of Updated and TRAC Origination Data, by State (millions of bushels)

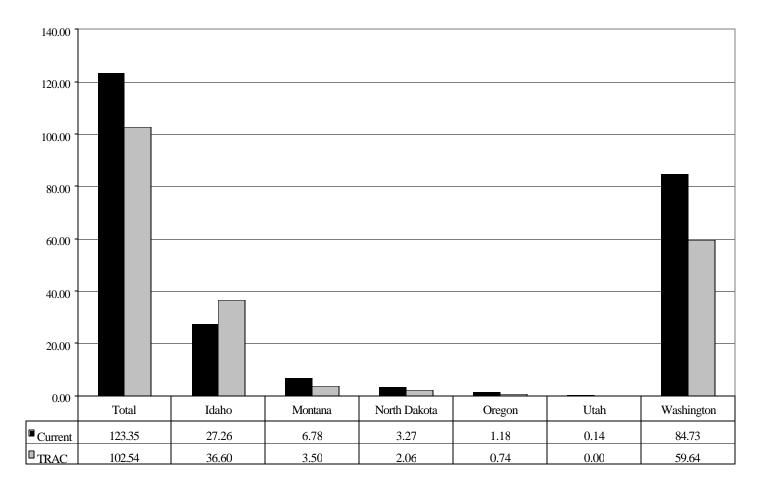


Exhibit 21: Comparison of Updated and TRAC Origination Data for Idaho State Counties and Regions (millions of bushels)

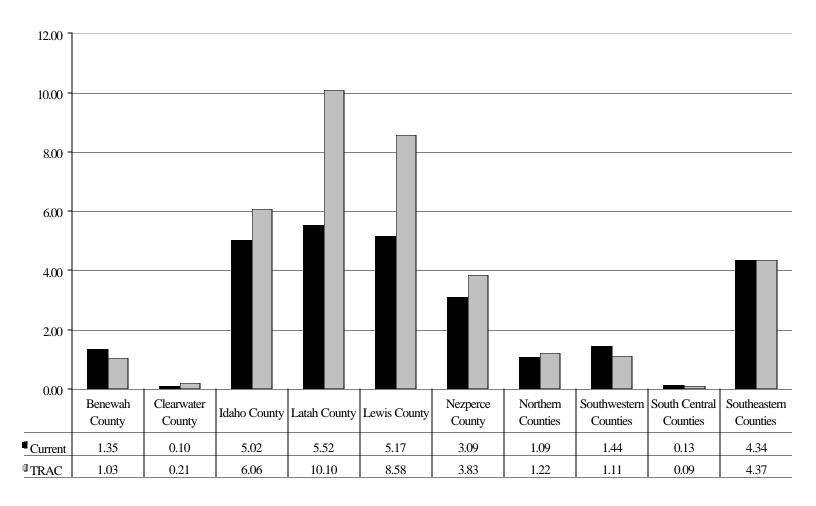
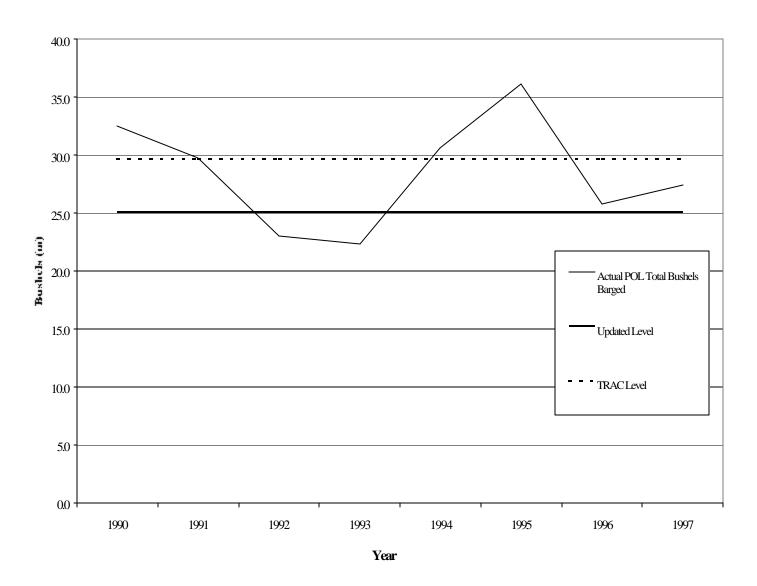


Exhibit 22: Comparison of Updated to Historical Total Bushels, Port of Lewiston



fall safely within the range of total grains moving through the Port of Lewiston over the last eight years. More in-depth consideration of this unexpected result was beyond the scope of the study team's work.

Whatever the case, the study team is quite confident in the accuracy of the updated data, because the updates performed were controlled to actual totals reported by the facility managers. That is to say, the updated totals themselves accurately reflect the current total bushels actually moving through the facilities, but that total (that is data for 1997-98) may not adequately represent the long-term trend in movements through the facilities.

Exhibit 23 graphically demonstrates the changes in total grains moving through the elevators studied, broken down by river destination dam-pool. It demonstrates – not at all surprisingly – that all of the growth in total bushels moving through the facilities studied occurred in the Ice Harbor, Lower Monumental, and Little Goose Pools. This Lower Granite Pool did not change significantly, reflecting the decreased activity at the Port of Lewiston and increased activity at the Port of Wilma (driven primarily by increases in grains originating in Washington.) Once again, the upshot is that grains originating in the Idaho counties nearby to Lewiston have decreased since the TRAC data was developed.

As stated already, the increase in total grains moving through the river elevators studied was driven by a substantial increase in the amounts of grains originating in Washington State. *Exhibit 24* graphically shows this increase at the county level. Of the ten counties that originated grains barged on the Snake through one of the facilities studied, nine of them showed increases in the total volume of grains. The only exception was Grant county, which accounted for a negligible share of the total. *Appendix C* contains several other comparisons of the TRAC and updated, for various geographic breakdowns of the off-river-to-river movement patterns.

The general conclusion reached by the study team concerning the "continued accuracy of the TRAC data" (to borrow from the SOW) is that it is no longer accurate. The SOW suggested that the study team would discover only minimal discrepancies in the TRAC data, vis-à-vis the current operations of the elevators, which discrepancies could be resolved during interviews with the facility managers. It seems, on the contrary, that substantial changes have occurred. The overall increase in grains being barged and the shift in origination volumes from Idaho to Washington are two manifestations of these changes.

This conclusion might logically be taken to suggest another; to wit, that the study team believes IWR would be well advised to use the updated data in place of the original TRAC data. Although the study team does believe that IWR ought to use the updated data, several considerations, nevertheless, urge caution.

The primary caveat is that the study team's investigation does not include two significant river elevators. The first of these is the facility at Walla Burbank, owned by Cograin and Cargill. The facility and corporate management refused to cooperate with the study team in any way. The other facility was constructed by Cograin after the

Exhibit 23: Off-River Origins of Snake River Barged Grains, by Pool (millions of bushels)

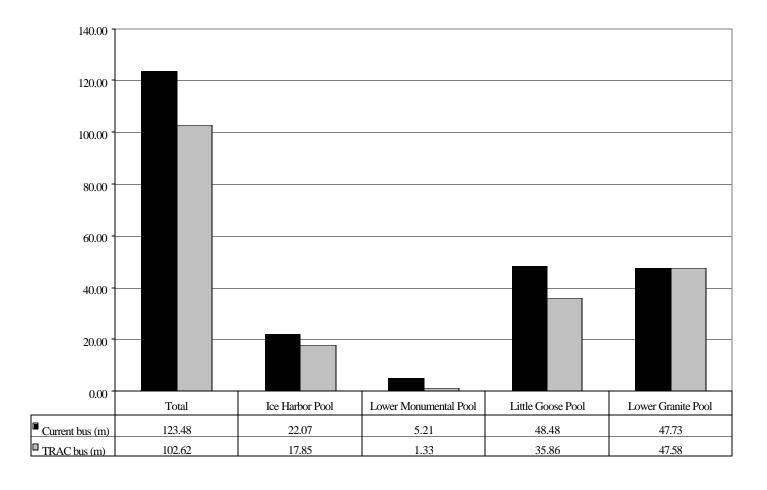
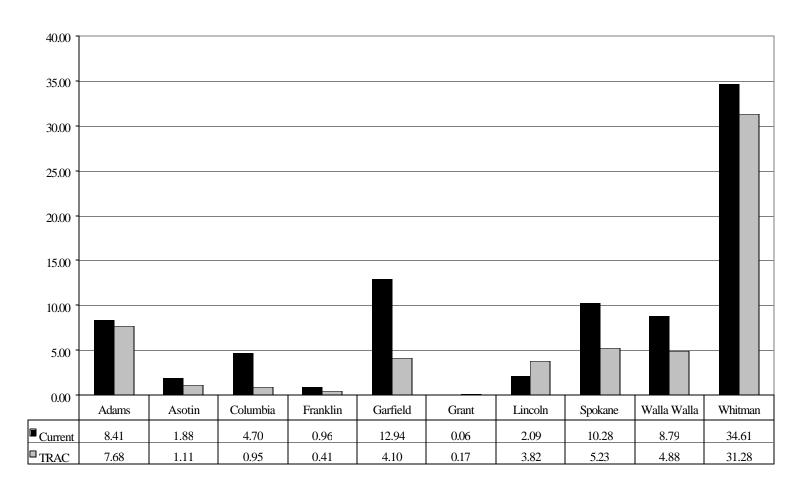


Exhibit 24: Comparison of Updated and TRAC Origination Data for Washington State Counties (millions of bushels)



TRAC data was developed. It is located in the Lower Monumental Pool, not far from the Windust facility. In the TRAC data, both Windust and Pomeroy received grains from about a dozen Odessa Union Warehouse Cooperative country elevators. Odessa Union is owned by Cograin, and many of these grains now move through the new Cograin river elevator facility.

The existence of two facilities about whom this report provides no information renders the use of the updated data less desirable. A stated earlier, in terms of the original TRAC data, the Walla Walla/Burbank facility and grains originating at Odessa Union and not moving to the Burbank facility account for about nine percent of total volume in the TRAC data. Increasing that concern is that fact that not even original TRAC data is possessed for one of those facilities.

In light of this concern, the study team would advise IWR to use the updated data in place of the TRAC data, except in two instances. First, the TRAC data for all movements originating at an Odessa Union Warehouse facility and destinating anywhere other than Walla Walla/Burbank ought to be assigned to the new Cograin facility. Second, the TRAC data for the Walla Walla/Burbank facility should be used, but all of the off-river origins (most of which are in Washington) should be increased by a factor reflecting the growth in Washington off-river-to-river grain shipments.

Another caveat involves the representativeness of the Lower Granite Pool Data, particularly with regard to grains originating in the Idaho counties nearby to Lewiston. If, based on the unexpected shrinkage discussed earlier, IWR determines that the updated data does reflect a representative year, it could choose to utilize TRAC data instead of the updated data for the Port of Lewiston. Alternatively, it could adjust all the off-river updated volumes by a common factor reflecting the extent to which the previous year might have been slower than a representative year. If the issue of representativeness concerns IWR, the study team recommends the latter approach. This is because substantial changes to the pattern of off-river origins for both facilities in the Port of Lewiston have occurred since the TRAC data was developed.

All of the TRAC and updated data is contained in *Appendix C*, and is provided on a disk with this report. The data is organized by off-river-origination/river-elevator-destination pairings. This will allow IWR to further manipulate the data.

### B. LOCATIONAL PATTERNS OF THE COUNTY ELEVATORS

The study team was tasked with comparing the locational patterns of the country elevators in the TRAC data with their current status. After some consideration, it was decided that the best approach to discovering changes in the operational or locational status of the country elevators was through the interviews with the river elevator operators. It was thought that this would be a more direct and efficient means of procuring this data, as opposed to comparing the TRAC data to USDA or other Governmental lists.

Consequently, during its interviews with the river elevator operators, the study team inquired about the location and ownership of the country elevators moving grains through their facility. Overall, it seems that the locational and operational status of the country elevators has not changed much since the TRAC data was developed. On the other hand, the ownership of some of the elevators have changed, and in some cases, this has caused a shift in grains moving from that facility from one river elevator to another.

The most substantial example is the merger between Walla Walla Grain Growers and Touchet Valley Grain Growers. Several river elevator operators indicated that this merger resulted in the loss of volume from some off-river origins. In one case, the facility manager also indicated that the loss of the Touchet Valley grains was offset by new business with a different off-river origin, or increased business with existing contacts. Overall, it appears that the merger between Walla Walla Grain Growers and Touchet Valley Grain Growers, at

a macroscopic level, caused a shift in the geographic patterns off-river origins for a particular river elevator facility, but not a zero-sum change in the total volume of grains moving through each facility.

*Exhibit 25* details other changes in ownership of country elevators that were uncovered by the study team during its interviews.

The most important fact uncovered by the study team is that while ownership of some of the country elevators changed (primarily due to mergers), this fact had little impact on the operations or patterns of off-river origins of the river elevators. For one thing, in some cases, the new ownership did not substantially affect the volume of grains moving from the country elevators to the river elevators. When volumes were lost or gained due to a alienated country elevator facility, the river elevators often replaced the lost grains with business from some other location. The overriding influence affecting changes is off-river-to-river grain movements is the overall substantial increase in volume, and the shift in volume to Washington state and away from the four Lewiston area counties in Idaho.

### Exhibit 25:

## **Country Elevators Under New Ownership**

Change of Ownership Location of Elevator	River Elevators Affected
1. Harvest States buy out of Inland Empire Pea Growers	
Latah, WA	Pomeroy, Almota
Spokane, WA	Pomeroy, Almota
Waverly, WA	Pomeroy
Garfield, WA	Pomeroy, Almota
2. Merger of Touchet Valley Grain Growers into Walla Walla	a Grain Growers
McKay, WA	Lyons Ferry, Sheffler
Whetstone, WA	Lyons Ferry, Sheffler
3. Almota Elevator Co. buy out of Garfield Union Warehouse	e Co.
Crabtree, WA	Almota, Pomeroy
4. Columbia Grain Growers buy out of Kendrick Rochdale C	Co.
Kendrick, ID	Lewiston, Clarkstor
5. General Mills buy out of Modern Mills/Rockford, Inc.	
Blackfoot, ID	Wilma, Clarkston, Lewistor
6. Columbia Grain Growers buy out of Nezperce Rochdale C	Co.
Greer, ID	Lewistor
Nezperce, ID	Clarkston, Lewiston
7. Columbia Grain Growers buy out of Cottonwood Elevator	· Co.
Cottonwood, ID	Lewistor
8. Harvest States buy out of Lewiston Grain Growers*	
Cragimont, ID	Lewistor
Kendrick, ID	Lewistor
Ferdinand, ID	Lewistor
9. Columbia Grain Growers buy out of Nezperce Storage Co.	
Nezperce, ID	Lewistor

<sup>\*</sup> Did not involve a name change of the Lewiston Grain Growers' Elevators

# APPENDIX A

**River Elevator Contacts** 

### **Partial List of Contacts**

Mr. Gene Turner Port Manager Port of Columbia (509) 382-2577

Mr. David B. Gordon General Manager Walla Walla Grain Growers, Inc. 850 N. 4<sup>th</sup> Walla Walla, WA 99362 (509) 525-6510

Mr. Bill Rittal Manager Continental Grain Co. 1422 Third Avenue N. Lewiston, ID 83501 (208) 746-0102

Mr. Gregg Rothenberger Superintendent Harvest States 900 E. Columbia Dr. P.O. Box 6267 Kennewick, WA 99336 (509) 586-1128

Mr. Ted S. Lowe Assistant Manager Columbia County Grain Growers P.O. Box 90 210 East Main Dayton, WA 99328 (509) 382-2571

Mr. David J. Hogan Vice President Continental Grain Co. 222 S.W. Columbia St. Suite 1100 Portland, OR 97201 (503) 228-9222

# APPENDIX B

**TRAC** and **Updated Data** 

<b>Destination River</b>	Origination	Origination	Origination	Origination		CURRENT/ESTIMATED			TRAC DATA		
<b>Elevator Facility</b>	State	County	Town	Orinization	Total	Wheat	Barley	Total	Wheat	Barley	
Port of Almota	Washington	Whitman	Crabtree	Almota Elevator Co.	165,060	117,900	47,160	165,060	117,900	47,160	
Port of Almota	Washington	Whitman	Mockenema	Almota Elevator Co.	369,420	235,800	133,620	369,420	235,800	133,620	
Port of Almota	Washington	Whitman	Union Center	Almota Elevator Co.	314,400	196,500	117,900	314,400	196,500	117,900	
Port of Almota	Washington	Whitman	Belmont	Auvil-Warner Co.	97,385	80,879	16,506	97,385	80,879	16,506	
Pomeroy/Central Ferry	Washington	Whitman	Belmont	Auvil-Warner Co.	16,817	14,235	2,582	28,368	24,012	4,356	
Port of Almota	Washington	Whitman	Warner Siding	Auvil-Warner Co.	70,927	66,755	4,172	70,927	66,755	4,172	
Pomeroy/Central Ferry	Washington	Whitman	Warner Siding	Auvil-Warner Co.	3,066	2,886	180	5,172	4,868	304	
Windust	Washington	Adams	Booker	B & H Chem Co.	185,846	185,846	0	173,328	173,328	0	
Windust	Washington	Adams	Washtucna	Blankenship Farms	464,527	404,013	60,514	427,040	376,800	50,240	
Pomeroy/Central Ferry	Idaho	Bonner	Sandpoint	Bonners Ferry Grain	0	0	0	130,680	130,680	0	
Windust	Washington	Spokane	Rodna	Cheney Grain Growers	204,731	163,785	40,946	125,600	100,480	25,120	
Windust	Washington	Lincoln	Davenport	Davenport Union	253,783	180,492	73,291	243,664	163,280	80,384	
Pomeroy/Central Ferry	Washington	Spokane	Fairfield	Fairfield Grain Growers	304,853	202,069	102,784	303,613	201,247	102,366	
Pomeroy/Central Ferry	Washington	Spokane	Waverly	Fairfield Grain Growers	30,135	20,294	9,841	30,013	20,212	9,801	
Pomeroy/Central Ferry	Washington	Whitman		Farm-River	1,291,170	1,162,053	129,117	2,178,000	1,960,200	217,800	
Port of Wilma	Idaho	Ada		Farm-River	133,667	133,667	0	87,000	87,000	0	
Windust	Washington	Adams		Farm-River	812,732	812,732	0	647,468	647,468	0	
Pomeroy/Central Ferry	Washington	Adams		Farm-River	138,602	126,002	12,600	119,790	108,900	10,890	
Port of Wilma	Washington	Asotin		Farm-River	1,379,500	1,310,525	68,975	870,000	870,000	0	
Pomeroy/Central Ferry	Idaho	Benewah		Farm-River	0	0	0	435,600	435,600	0	
Port of Wilma	Idaho	Bingham		Farm-River	133,451	133,451	0	87,000	87,000	0	
Port of Wilma	Idaho	Bonneville		Farm-River	53,273	53,273	0	34,800	34,800	0	
Port of Wilma	Idaho	Canyon		Farm-River	333,198	333,198	0	217,500	217,500	0	
Port of Wilma	Idaho	Cassia		Farm-River	66,833	66,833	0	43,500	43,500	0	
Columbia/Lyons Ferry	Washington	Columbia		Farm-River	1,760,000	1,420,000	340,000	702,000	702,000	0	
Port of Wilma	Idaho	Elmore		Farm-River	213,092	213,092	0	139,200	139,200	0	
Windust	Washington	Franklin		Farm-River	579,774	579,774	0	323,546	323,546	0	
Pomeroy/Central Ferry	Washington	Garfield		Farm-River	7,305,598	5,113,919	2,191,680	0	0	0	
Port of Wilma	Idaho	Gem		Farm-River	29,058	29,058	0	19,140	19,140	0	
Windust	Washington	Grant		Farm-River	61,434	61,434	0	0	0	0	

Port of Wilma	Idaho	Idaho		Farm-River	1,575,912	1,575,912	0	870,000	870,000	0
Port of Wilma	Idaho	Jefferson		Farm-River	53,369	53,369	0	34,800	34,800	0
Port of Wilma	Idaho	Jerome		Farm-River	27,121	27,121	0	17,400	17,400	0
Pomeroy/Central Ferry	Idaho	Kootenai		Farm-River	0	0	0	598,950	544,500	54,450
Port of Almota	Idaho	Latah	Latah	Farm-River	1,532,700	1,226,160	306,540	1,532,700	1,226,160	306,540
Pomeroy/Central Ferry	Idaho	Latah		Farm-River	0	0	0	598,950	544,500	54,450
Port of Wilma	Idaho	Latah		Farm-River	533,699	533,699	0	348,000	348,000	0
Port of Wilma	Idaho	Lewis		Farm-River	1,575,912	1,575,912	0	870,000	870,000	0
Windust	Washington	Lincoln		Farm-River	100,000	100,000	0	0	0	0
Port of Wilma	Idaho	Madison		Farm-River	27,121	27,121	0	17,400	17,400	0
Port of Wilma	Idaho	Nezperce		Farm-River	2,184,193	2,184,193	0	1,740,000	1,740,000	0
Port of Wilma	Idaho	Owyhee		Farm-River	106,546	106,546	0	69,600	69,600	0
Pomeroy/Central Ferry	Washington	Spokane		Farm-River	568,592	437,378	131,213	566,280	435,600	130,680
Port of Wilma	Idaho	Twin Falls		Farm-River	39,713	39,713	0	26,100	26,100	0
Columbia/Lyons Ferry	Washington	Walla Walla		Farm-River	506,000	351,000	155,000	508,716	468,000	40,716
Port of Wilma	Oregon	Wallowa		Farm-River	534,000	534,000	0	348,000	348,000	0
Port of Wilma	Idaho	Washington		Farm-River	80,099	80,099	0	52,200	52,200	0
Port of Wilma	Washington	Whitman		Farm-River	2,781,250	2,781,250	0	1,740,000	1,740,000	0
Port of Almota	Washington	Spokane		Farm-River	1,286,289	1,286,289	0	1,226,160	1,226,160	0
Port of Almota	Washington	Whitman		Farm-River	6,207,435	5,349,123	858,312	6,207,435	5,349,123	858,312
Pomeroy/Central Ferry	Idaho	Boundary	Bonners Ferry	General Feed & Grain	0	0	0	199,287	108,900	90,387
Pomeroy/Central Ferry	Washington	Whitman	Pine City	Inland Empire Milling	172,371	107,813	64,558	290,763	181,863	108,900
Pomeroy/Central Ferry	Washington	Whitman	Pleasant Valley	Inland Empire Milling	86,186	53,906	32,279	145,382	90,932	54,450
Pomeroy/Central Ferry	Washington	Whitman	St. John	Inland Empire Milling	37,444	21,304	16,140	63,162	35,937	27,225
Port of Almota	Washington	Whitman	Pine City	Inland Empire Milling	418,938	261,738	157,200	418,938	261,738	157,200
Port of Almota	Washington	Whitman	Pleasant Valley	Inland Empire Milling	209,469	130,869	78,600	209,469	130,869	78,600
Port of Almota	Washington	Whitman	St. John	Inland Empire Milling	91,962	52,662	39,300	91,962	52,662	39,300
Pomeroy/Central Ferry	Washington	Spokane	Latah	Inland Empire Pea Gr.	142,148	142,148	0	141,570	141,570	0
Pomeroy/Central Ferry	Washington	Spokane	Spokane	Inland Empire Pea Gr.	82,008	82,008	0	81,675	81,675	0
Pomeroy/Central Ferry	Washington	Spokane	Waverly	Inland Empire Pea Gr.	32,803	32,803	0	32,670	32,670	0
Pomeroy/Central Ferry	Washington	Whitman	Garfield	Inland Empire Pea Gr.	19,368	11,750	7,618	32,670	19,820	12,850
Port of Almota	Washington	Spokane	Spokane	Inland Empire Pea Gr.	0	0	0	11,397	11,397	0
Port of Almota	Washington	Spokane		Inland Empire Pea Gr.	0	0	0	48,732	48,732	0

Port of Almota	Washington	Whitman	Garfield	Inland Empire Pea Gr.	30,654	18,392	12,262	30,654	18,392	12,262
Port of Almota	Washington	Whitman	Chambers	Johnson Union	36,353	24,563	11,790	36,353	24,563	11,790
Pomeroy/Central Ferry	Washington	Whitman	Dusty	Lacrosse Grain Growers	688,839	679,801	9,038	1,161,963	1,146,717	15,246
Pomeroy/Central Ferry	Washington	Whitman	Lamont	Lamont Grain Growers	338,932	274,374	64,558	571,725	462,825	108,900
Pomeroy/Central Ferry	Washington	Whitman	Revere	Lamont Grain Growers	173,017	125,889	47,128	291,852	212,355	79,497
Windust	Washington	Whitman	Lamont	Lamont Grain Growers	1,112,365	825,053	194,130	659,400	533,800	125,600
Windust	Washington	Whitman	Revere	Lamont Grain Growers	446,499	252,369	93,182	223,568	163,280	60,288
Port of Wilma	Idaho	Bingham	Blackfoot	Modern Mills Rockford	226,868	226,868	0	147,900	147,900	0
Pomeroy/Central Ferry	Washington	Whitman	Fairbanks	Oakesdale Grain Growers	421,567	398,971	22,595	711,117	673,002	38,115
Windust	Washington	Adams	Batum	Odessa Trading Co.	272,708	272,708	0	254,340	254,340	0
Windust	Washington	Adams	Moody	Odessa Trading Co.	181,806	181,806	0	169,560	169,560	0
Windust	Washington	Lincoln	Odessa	Odessa Trading Co.	173,550	173,550	0	157,000	157,000	0
Windust	Washington	Lincoln	Schmierer	Odessa Trading Co.	208,260	208,260	0	188,400	188,400	0
Windust	Washington	Lincoln	Downs	Odessa Union	0	0	0	150,720	121,832	28,888
Windust	Washington	Lincoln	Harrington	Odessa Union	0	0	0	572,736	400,664	172,072
Windust	Washington	Lincoln	Irby	Odessa Union	0	0	0	74,104	74,104	0
Windust	Washington	Lincoln	Lamona	Odessa Union	0	0	0	285,112	263,760	21,352
Windust	Washington	Lincoln	Mohler	Odessa Union	0	0	0	359,216	298,928	60,288
Windust	Washington	Lincoln	Odessa	Odessa Union	0	0	0	251,200	251,200	0
Windust	Washington	Lincoln	Rocklyn	Odessa Union	0	0	0	244,920	194,680	50,240
Windust	Washington	Adams	Lauer	Odessa Union	0	0	0	11,555	0	11,555
Windust	Washington	Grant	Ephrata	Odessa Union	0	0	0	42,704	42,704	0
Windust	Washington	Grant	Ephrata	Odessa Union	0	0	0	26,376	26,376	0
Windust	Washington	Grant	Stratford	Odessa Union	0	0	0	100,480	100,480	0
Pomeroy/Central Ferry	Washington	Whitman	Palouse	Palouse Grain Growers	161,590	106,715	54,875	272,577	180,012	92,565
Port of Almota	Washington	Whitman	Palouse	Palouse Grain Growers	196,736	129,926	66,810	196,736	129,926	66,810
Pomeroy/Central Ferry	Washington	Garfield	Zumwalt	Pomeroy Grain Growers	179,685	119,790	59,895	163,350	108,900	54,450
Pomeroy/Central Ferry	Washington	Garfield		Pomeroy Grain Growers	149,738	99,426	50,312	136,125	90,387	45,738
Pomeroy/Central Ferry	Washington	Garfield		Pomeroy Grain Growers	2,077,159	1,401,543	675,616	1,888,326	1,274,130	614,196
Pomeroy/Central Ferry	Washington	Garfield	Pomeroy	Pomeroy WH & Feed	479,160	359,370	119,790	435,600	326,700	108,900
Pomeroy/Central Ferry	Washington	Whitman	Central Ferry	Pomeroy WH & Feed	221,597	166,077	55,520	373,799	280,145	93,654
Port of Almota	Washington	Whitman	Garfield	Prarie Grain	226,368	163,488	62,880	226,368	163,488	62,880
Port of Wilma	Washington	Whitman	Garfield	Prarie Grain	82,902	59,874	23,028	125,280	90,480	34,800

Port of Almota	Washington	Whitman	Seltice	Prarie Grain	113,184	113,184	0	113,184	113,184	0
Port of Wilma	Washington	Whitman	Seltice	Prarie Grain	41,451	41,451	0	62,640	62,640	0
Port of Almota	Washington	Whitman	Tilma	Prarie Grain	188,640	117,900	70,740	188,640	117,900	70,740
Port of Wilma	Washington	Whitman	Tilma	Prarie Grain	184,227	115,142	69,085	278,400	174,000	104,400
Port of Almota	Idaho	Benewah	Tensed	Prarie Grain	117,900	117,900	0	117,900	117,900	0
Port of Wilma	Idaho	Benewah	Tensed	Prarie Grain	734,199	400,472	333,727	478,500	261,000	217,500
Windust	Washington	Adams	Ritzville	R R Warehouse	2,208,583	1,963,501	245,082	2,034,720	1,831,248	203,472
Windust	Washington	Lincoln	Eleanor	Reardan Grain Growers	277,680	277,680	0	251,200	251,200	0
Windust	Washington	Lincoln	Gravelle	Reardan Grain Growers	312,390	312,390	0	282,600	282,600	0
Windust	Washington	Lincoln	Reardon	Reardan Grain Growers	242,970	242,970	0	219,800	219,800	0
Windust	Washington	Spokane	Espanola	Reardan Grain Growers	409,461	368,515	0	226,080	226,080	0
Windust	Washington	Spokane	Hite	Reardan Grain Growers	460,644	460,644	0	282,600	282,600	0
Port of Wilma	Idaho	Jefferson	Ririe	Ririe Grain & Feed	1,024,683	1,024,683	0	668,160	668,160	0
Pomeroy/Central Ferry	Washington	Whitman	Oakesdale	RMK Farms, Inc.	56,489	56,489	0	95,288	95,288	0
Port of Almota	Washington	Whitman	Oakesdale	RMK Farms, Inc.	68,775	68,775	0	68,775	68,775	0
Pomeroy/Central Ferry	Washington	Spokane	Freeman	Rockford Grain Growers	249,306	249,306	0	248,292	248,292	0
Pomeroy/Central Ferry	Washington	Spokane	Mead	Rockford Grain Growers	453,780	445,032	8,748	451,935	443,223	8,712
Pomeroy/Central Ferry	Washington	Spokane	Mt. Hope	Rockford Grain Growers	78,728	78,728	0	78,408	78,408	0
Pomeroy/Central Ferry	Washington	Spokane	Rockford	Rockford Grain Growers	406,762	406,762	0	405,108	405,108	0
Pomeroy/Central Ferry	Washington	Spokane	Plaza	Rosalia Producers, Inc.	94,036	0	94,036	93,654	0	93,654
Pomeroy/Central Ferry	Washington	Spokane	Plaza	Rosalia Producers, Inc.	207,755	0	207,755	206,910	0	206,910
Pomeroy/Central Ferry	Washington	Spokane	Spangle	Rosalia Producers, Inc.	267,894	136,681	131,213	266,805	136,125	130,680
Pomeroy/Central Ferry	Washington	Whitman	Balder	Rosalia Producers, Inc.	287,931	200,777	87,154	485,694	338,679	147,015
Pomeroy/Central Ferry	Washington	Whitman	Mccoy	Rosalia Producers, Inc.	152,939	102,583	50,356	257,984	173,042	84,942
Pomeroy/Central Ferry	Washington	Whitman	Pine City	Rosalia Producers, Inc.	471,277	240,158	231,119	794,970	405,108	389,862
Pomeroy/Central Ferry	Washington	Whitman	Rosalia	Rosalia Producers, Inc.	167,271	96,257	71,014	282,160	162,370	119,790
Pomeroy/Central Ferry	Washington	Whitman	Squaw Canyon	Rosalia Producers, Inc.	85,863	51,001	34,862	144,837	86,031	58,806
Pomeroy/Central Ferry	Washington	Whitman	Ewan	St. John Grain Growers	868,312	713,371	154,940	1,464,705	1,203,345	261,360
Port of Almota	Washington	Whitman	Tekoa	Stateline Processors, Inc.	268,812	212,220	56,592	268,812	212,220	56,592
Pomeroy/Central Ferry	Washington	Whitman	Tekoa	Stateline Processors, Inc.	129,117	102,002	27,115	217,800	172,062	45,738
Port of Wilma	Washington	Whitman	Pullman	Stegner Grain & Seed Co.	345,426	345,426	0	522,000	522,000	0
Pomeroy/Central Ferry	Washington	Whitman	Crabtree	The Garfield Union WH	67,141	48,419	18,722	113,256	81,675	31,581
Walla Walla/Sheffler	Washington	Walla Walla		Touchet Valley GG	2,000,000	1,810,393	189,607	0		

Columbia/Lyons Ferry	Washington	Columbia	Mckay	Touchet Valley GG	0	0	0	53,820	47,034	6,786
Columbia/Lyons Ferry	Washington	Columbia	Whetstone	Touchet Valley GG	42,000	0	42,000	64,233	55,458	8,775
Columbia/Lyons Ferry	Washington	Columbia	Alto	Columbia GG	75,250	59,000	16,250	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Dayton	Columbia GG	882,000	778,000	104,000	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Delaney	Columbia GG	99,000	97,000	2,000	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Huntsville	Columbia GG	470,000	395,000	75,000	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Longs	Columbia GG	368,000	293,000	75,000	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Relief	Columbia GG	273,000	213,000	60,000	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Starbuck	Columbia GG	13,200	12,000	1,200	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Turner	Columbia GG	556,000	458,000	98,000	0	0	0
Columbia/Lyons Ferry	Washington	Columbia	Whetstone	Columbia GG	163,000	130,000	33,000	0	0	0
Windust	Washington	Adams	Bauer	Union Elev & WareH	3,108,307	2,947,945	160,362	2,882,520	2,749,384	133,136
Pomeroy/Central Ferry	Washington	Whitman	Lancaster	United Grain Growers	85,217	51,647	33,570	143,748	87,120	56,628
Windust	Washington	Lincoln	Bluestem	United Grain Growers	17,178	0	17,178	18,840	0	18,840
Windust	Washington	Lincoln	Downs	United Grain Growers	75,592	45,817	29,774	74,104	41,448	32,656
Windust	Washington	Lincoln	Harrington	United Grain Growers	272,550	0	272,550	298,928	0	298,928
Windust	Washington	Lincoln	Mohler	United Grain Growers	155,105	94,411	60,694	151,976	85,408	66,568
Walla Walla/Sheffler	Washington	Walla Walla	Clyde	Walla Walla GG	277,800	222,240	55,560	65,310	52,248	13,062
Walla Walla/Sheffler	Washington	Walla Walla	Ennis	Walla Walla GG	330,500	265,184	65,316	118,025	94,700	23,325
Walla Walla/Sheffler	Washington	Walla Walla	Eureka	Walla Walla GG	108,400	108,400	0	50,382	50,382	0
Walla Walla/Sheffler	Washington	Walla Walla	Farm-River	Walla Walla GG	4,029,000	3,570,871	458,129	3,197,578	2,833,988	363,590
Walla Walla/Sheffler	Washington	Walla Walla	Paddock	Walla Walla GG	167,500	151,101	16,399	133,419	120,357	13,062
Walla Walla/Sheffler	Washington	Walla Walla	Pleasant View	Walla Walla GG	194,600	194,600	0	23,325	23,325	0
Walla Walla/Sheffler	Washington	Walla Walla	Rulo	Walla Walla GG	321,000	321,000	0	118,958	118,958	0
Walla Walla/Sheffler	Washington	Walla Walla	Smith Springs	Walla Walla GG	223,400	223,400	0	436,644	436,644	0
Walla Walla/Sheffler	Washington	Walla Walla	Spring Valley	Walla Walla GG	628,200	628,200	0	224,853	224,853	0
Windust	Washington	Adams	Fletcher	Washtucna GG	383,639	358,460	25,178	355,219	334,316	20,904
Windust	Washington	Adams	Sand Hills	Washtucna GG	278,922	243,842	35,080	256,542	227,418	29,124
Windust	Washington	Adams	Washtucna	Washtucna GG	374,048	374,048	0	348,854	348,854	0
Windust	Washington	Franklin	Sperry	Washtucna GG	385,190	373,774	11,416	89,176	80,384	8,792
Port of Wilma	Idaho	Washington	Weiser	Weiser Feed & Storage	533,993	533,993	0	348,000	348,000	0
Port of Almota	Washington	Whitman	Endicott	Wheat Growers/Endicott	39,300	23,580	15,720	39,300	23,580	15,720
Port of Almota	Washington	Whitman	Thera	Wheat Growers/Endicott	17,685	11,790	5,895	17,685	11,790	5,895

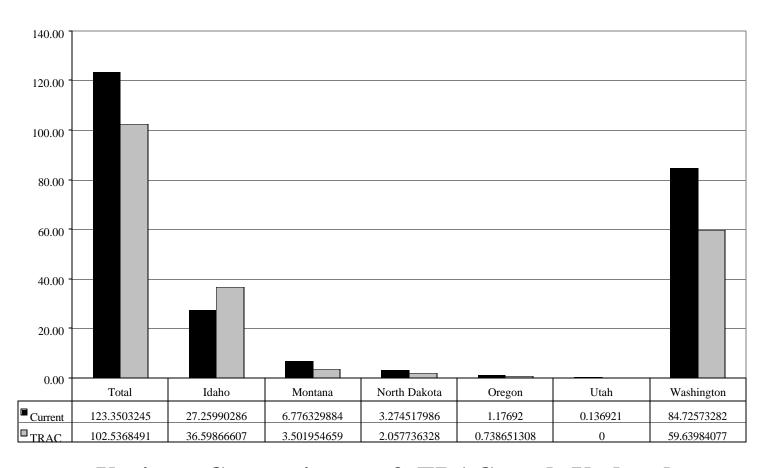
Port of Almota	Washington	Whitman	Winona	Wheat Growers/Endicott	15,720	11,790	3,930	15,720	11,790	3,930
Pomeroy/Central Ferry	Washington	Whitman	Endicott	Wheat Growers/Endicott	451,909	271,146	180,764	762,300	457,380	304,920
Pomeroy/Central Ferry	Washington	Whitman	Thera	Wheat Growers/Endicott	203,359	135,573	67,786	343,035	228,690	114,345
Pomeroy/Central Ferry	Washington	Whitman	Winona	Wheat Growers/Endicott	180,764	135,573	45,191	304,920	228,690	76,230
Pomeroy/Central Ferry	Washington	Whitman	Albion	Whitman County Growers	294,387	216,917	77,470	496,584	365,904	130,680
Port of Almota	Washington	Whitman	Albion	Whitman County Growers	1,553,136	1,144,416	408,720	1,553,136	1,144,416	408,720
Port of Lewiston	Idaho	Bannock		Country Elevators	0			0	0	0
Port of Lewiston	Idaho	Bannock		Farm-River	147,227			10,380	10,380	0
Port of Lewiston	Idaho	Bingham		Country Elevators	805,226			92,382	92,382	0
Port of Lewiston	Idaho	Bingham		Farm-River	0			0	0	0
Port of Lewiston	Idaho	Bonneville		Country Elevators	41,099			726,600	726,600	0
Port of Lewiston	Idaho	Bonneville		Farm-River	588,909			41,520	41,520	0
Port of Lewiston	Idaho	Boundary		Country Elevators	0			0	0	0
Port of Lewiston	Idaho	Boundary		Farm-River	17,439			15,572	15,572	0
Port of Wilma	Montana	Central			536,849	508,241	28,608	350,159	331,500	18,660
Port of Wilma	North Dakota	Central			73,767	53,611	20,157	48,129	34,978	13,151
Port of Lewiston	Idaho	Clearwater		Country Elevators	1,064			207,600	103,800	103,800
Port of Lewiston	Idaho	Clearwater		Farm-River	101,973			0	0	0
CFTA/Port of Whitman	Washington	Columbia		Farm-River	0	0	0	130,680	130,680	0
Port of Wilma	North Dakota	East Central			19,320	11,810	7,510	12,605	7,705	4,900
Port of Lewiston	Idaho	Elmore		Country Elevators	5,872			103,800	103,800	0
Port of Lewiston	Idaho	Elmore		Farm-River	0			0	0	0
Port of Lewiston	Idaho	Fremont		Country Elevators	16,439			290,640	290,640	0
Port of Lewiston	Idaho	Fremont		Farm-River	0			0	0	0
Port of Lewiston	Washington	Garfield		Country Elevators	2,751,474			0	0	0
CFTA/Port of Whitman	Washington	Garfield		Farm-River	0	0	0	2,613,600	1,568,160	1,045,440
Port of Lewiston	Washington	Garfield		Farm-River	0			0	0	0
Port of Lewiston	Idaho	Idaho		Country Elevators	3,232,188			4,359,600	3,944,400	415,200
Port of Lewiston	Idaho	Idaho		Farm-River	212,329			210,242	210,242	0
Port of Lewiston	Idaho	Jefferson		Country Elevators	57,773			1,021,392	1,021,392	0
Port of Lewiston	Idaho	Jefferson	·	Farm-River	883,363			62,280	62,280	0
CFTA/Port of Whitman	Idaho	Kootenai	·	Farm-River	0	0	0	217,800	130,680	87,120
Port of Lewiston	Idaho	Latah		Country Elevators	2,185,995			6,467,259	5,397,600	1,069,659

Port of Lewiston	Idaho	Latah	Farm-River	580,603			581,675	581,675	0
Port of Lewiston	Idaho	Lewis	Country Elevators	3,515,514			6,731,430	5,138,100	1,593,330
Port of Lewiston	Idaho	Lewis	Farm-River	78,298			64,875	64,875	0
Port of Lewiston	Idaho	Madison	Country Elevators	44,033			778,500	778,500	0
Port of Lewiston	Idaho	Madison	Farm-River	220,841			15,570	15,570	0
Port of Lewiston	Idaho	Nez Perce	Country Elevators	7,977			1,675,796	1,416,296	259,500
Port of Lewiston	Idaho	Nez Perce	Farm-River	895,896			0	0	0
Port of Wilma	North Dakota	North Central		44,641	32,640	12,001	29,126	21,296	7,830
Port of Wilma	Montana	North East		140,539	138,522	2,017	91,668	90,353	1,315
Port of Wilma	North Dakota	Northeast		1,921	1,921	0	1,253	1,253	0
Port of Wilma	Montana	Northern		1,148,259	1,107,906	40,353	748,969	722,648	26,321
Port of Wilma	North Dakota	Northwest		298,118	263,040	35,078	194,503	171,617	22,886
Port of Lewiston	Idaho	Owyhee	Country Elevators	2,641			46,710	46,710	0
Port of Lewiston	Idaho	Owyhee	Farm-River	0			0	0	0
Port of Lewiston	Idaho	Power	Country Elevators	0			249,120	249,120	0
Port of Lewiston	Idaho	Power	Farm-River	14,091			0	0	0
Port of Wilma	Montana	South Central		584,186	584,186	0	381,044	381,044	0
Port of Wilma	North Dakota	South Central		144,763	141,882	2,880	94,449	92,569	1,879
Port of Wilma	Montana	South East		159,874	159,874	0	104,273	104,273	0
Port of Wilma	North Dakota	Southwest		594,840	594,427	413	388,096	387,826	270
Port of Lewiston	Washington	Spokane	Country Elevators	37,609			187,048	161,098	25,950
CFTA/Port of Whitman	Washington	Spokane	Farm-River	5,000,000	4,266,667	733,333	217,800	130,680	87,120
Port of Lewiston	Washington	Spokane	Farm-River	0			0	0	0
Port of Lewiston	Oregon	Wallowa	Country Elevators	619,123			390,651	269,205	121,446
Port of Lewiston	Oregon	Wallowa	Farm-River	23,797			0	0	0
Port of Lewiston	Idaho	Washington	Country Elevators	1,761			31,140	31,140	0
Port of Lewiston	Idaho	Washington	Farm-River	0			0	0	0
Port of Wilma	North Dakota	West Central		306,630	263,885	42,745	200,057	172,169	27,889
Port of Wilma	Montana	Western		208,294	160,258	48,036	135,871	104,537	31,334
Port of Lewiston	Washington	Whitman	Country Elevators	3,012,916			3,028,002	2,377,591	650,411
CFTA/Port of Whitman	Washington	Whitman	Farm-River	7,200,000	4,266,667	2,933,333	1,089,000	653,400	435,600
Port of Lewiston	Washington	Whitman	Farm-River	1,063,361			467,989	467,989	0
Port of Lewiston	Utah		Country Elevator	0			0	0	0
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Port of Lewiston	Utah	Farm-River	136,921	0 0 0

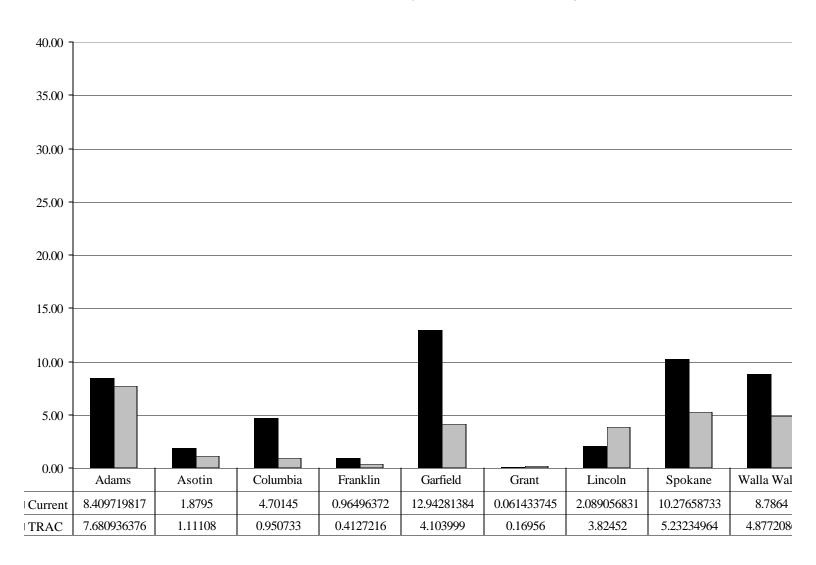
## APPENDIX C

# Comparison of Updated and TRAC Origination Data, by State (millions of bushels)

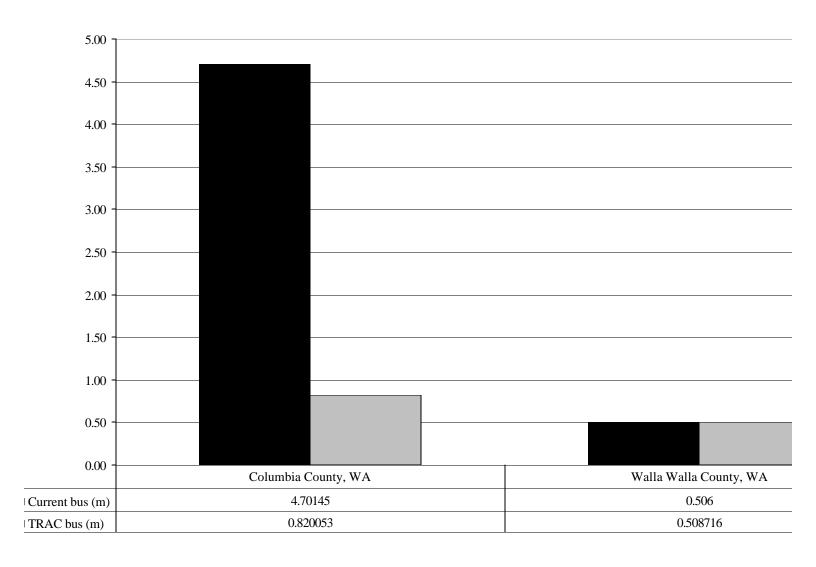


Various Comparisons of TRAC and Updated Data

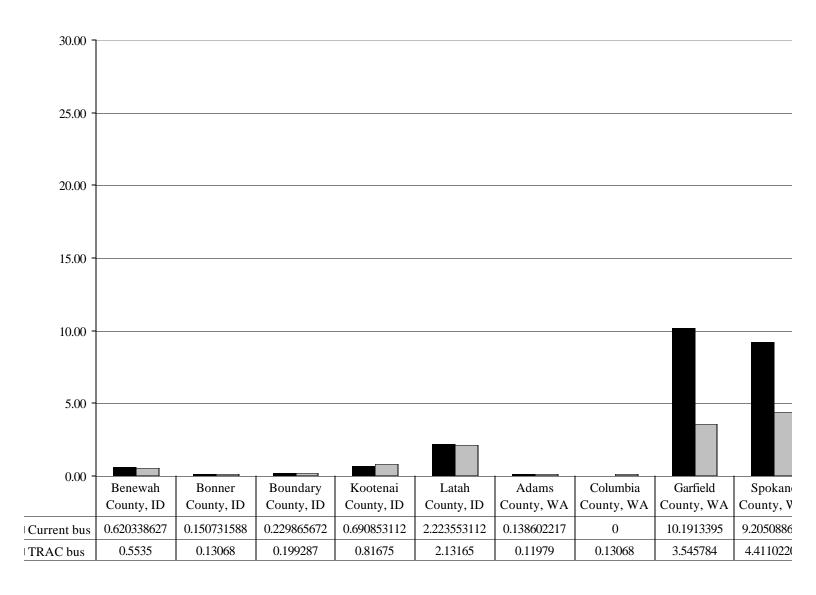
# Comparison of Updated and TRAC Origination Data for Washington State Counties (millions of bushels)



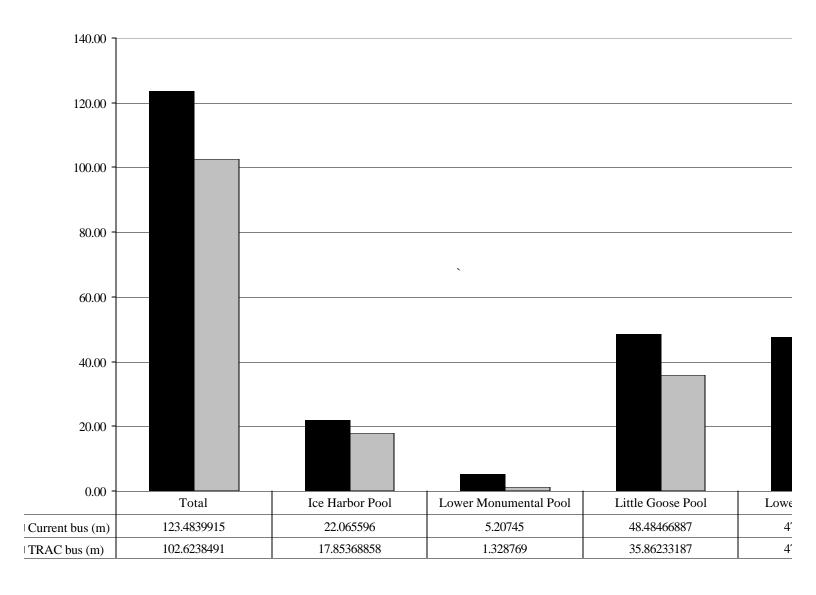
# Off-River Origins of Lower Monumental Pool Elevator Grains (millions of bushels)



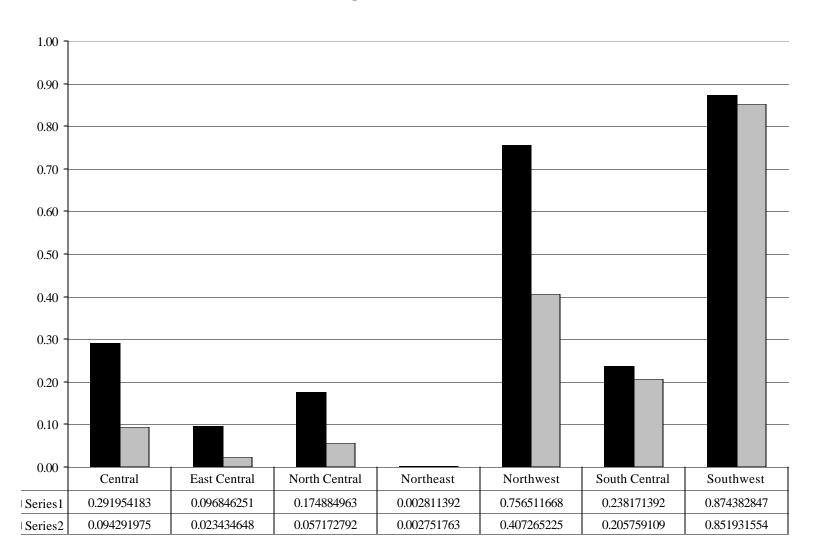
## Off-River Origins of Little Goose Pool Elevator Grains (millions of bushels)



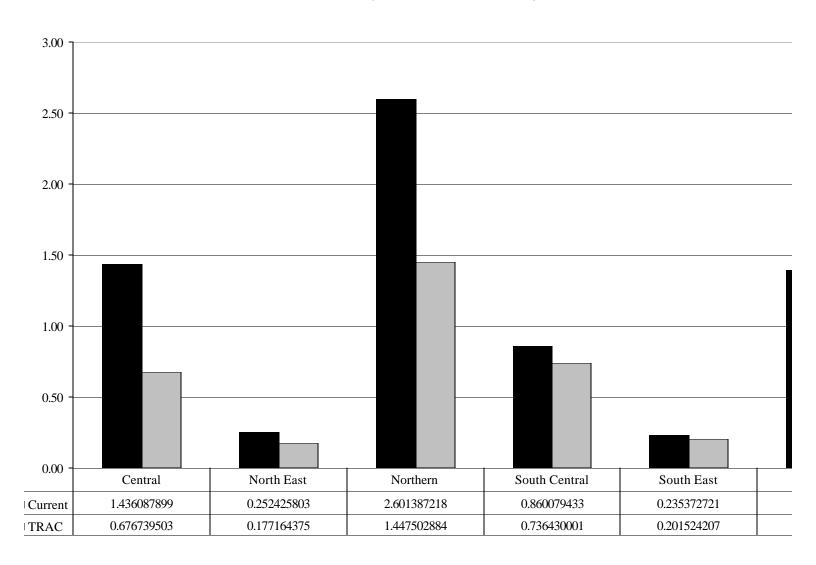
## Off-River Origins of Snake River Barged Grains, by Pool (millions of bushels)



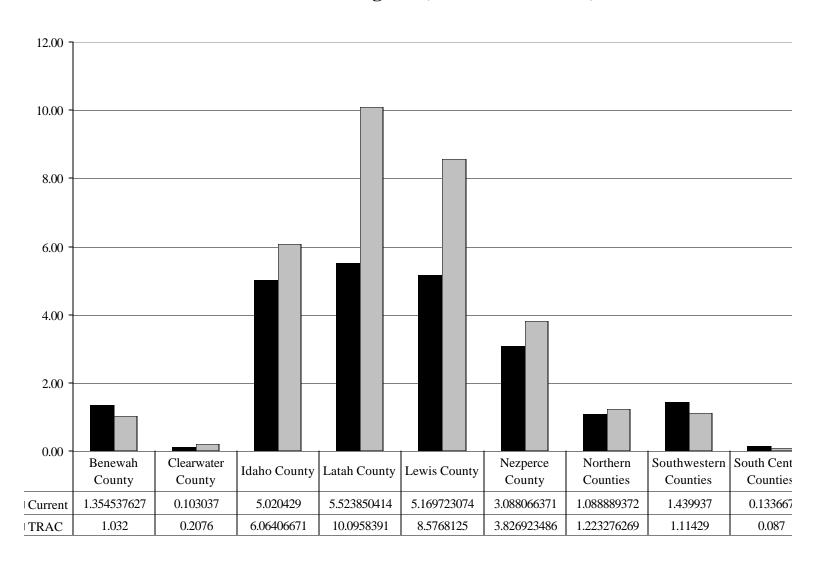
# Comparison of Updated and TRAC Origination Data for North Dakota State Regions (millions of bushels)



# Comparison of Updated and TRAC Origination Data for Montana Regions (millions of bushels)



# Comparison of Updated and TRAC Origination Data for Idaho State Counties and Regions (millions of bushels)



## Off-River Origins of Ice Harbor Pool Elevator Grains (millions of bushels)

