

1 **5.6 Socioeconomics**

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3 The primary socioeconomic region of interest is the Richland-Kennewick-Pasco Metropolitan  
4 Statistical Area, comprising Benton and Franklin Counties in Washington State (Tri-Cities region), where  
5 the vast majority of the socioeconomic impacts would be expected. Because the Tri-Cities region is the  
6 major retail and service center for the Hanford Site and its employees, over 90 percent of whom also live  
7 in Benton and Franklin Counties, relatively little impact would be expected on the economies of the sur-  
8 rounding counties (Grant, Adams, Yakima, and Walla Walla Counties in Washington or Umatilla County  
9 in Oregon) as a result of actions related to management of solid waste at Hanford. The socioeconomic  
10 impacts are classified in terms of primary and secondary. Changes in Hanford employment and non-labor  
11 expenditures associated with the various alternatives for dealing with LLW, MLLW, TRU waste, and  
12 ILAW are classified as primary impacts. Additional changes that result in the general regional economy  
13 and community as a result of these primary changes are classified as secondary effects. Examples of  
14 secondary impacts include changes in retail and service employment or changes in demand for housing.  
15 The total socioeconomic impact in the region is the sum of the primary and secondary impacts. Based on  
16 this analysis, the implementation of any of the HSW EIS alternatives would likely have very small  
17 impacts on the local socioeconomic infrastructure, for instance housing, schools, medical support, and  
18 transportation.

19  
20 Estimates of total employment impacts were calculated using a variant of the IMPLAN regional  
21 economic model for the Tri-Cities region (Minnesota IMPLAN Group, Inc. 1997). These estimates were  
22 checked for consistency with the less-detailed estimates produced for the DOE WM PEIS (DOE 1997)  
23 using the Regional Input-Output Modeling System (RIMS) of the U.S. Bureau of Economic Analysis.  
24 Allowing for differences in methods, the more-detailed estimates produced for the HSW EIS are in gen-  
25 eral agreement but at the lower end of the range with those produced by the earlier, less-detailed analysis  
26 in the WM PEIS. The HSW EIS estimate reports the changes in employment and earnings based on the  
27 most recently available historical data. The reports indicate that 93 percent of Hanford employees reside  
28 in the Benton-Franklin County region and that about 81 percent of all non-labor procurements made by  
29 Hanford management and operations contractors occur in the same region.

30  
31 Impacts other than employment and income are largely based on changes in population, in view of  
32 current capacities of the local roads, schools, waste and water treatment, and other elements of local  
33 infrastructure. Historical geographic patterns of settlement are assumed to persist.

34  
35 For purposes of this analysis, a baseline forecast of budgets and employment at Hanford was  
36 constructed that reflected October 2001 budget plans and estimates at DOE-RL, DOE Office of River  
37 Protection, and Pacific Northwest National Laboratory for DOE and non-DOE work. The baseline was  
38 necessary to provide perspective on the size of changes in Hanford activity that may occur as a result of  
39 actions to manage Hanford solid waste. Table 5.14 shows the baseline scenario.

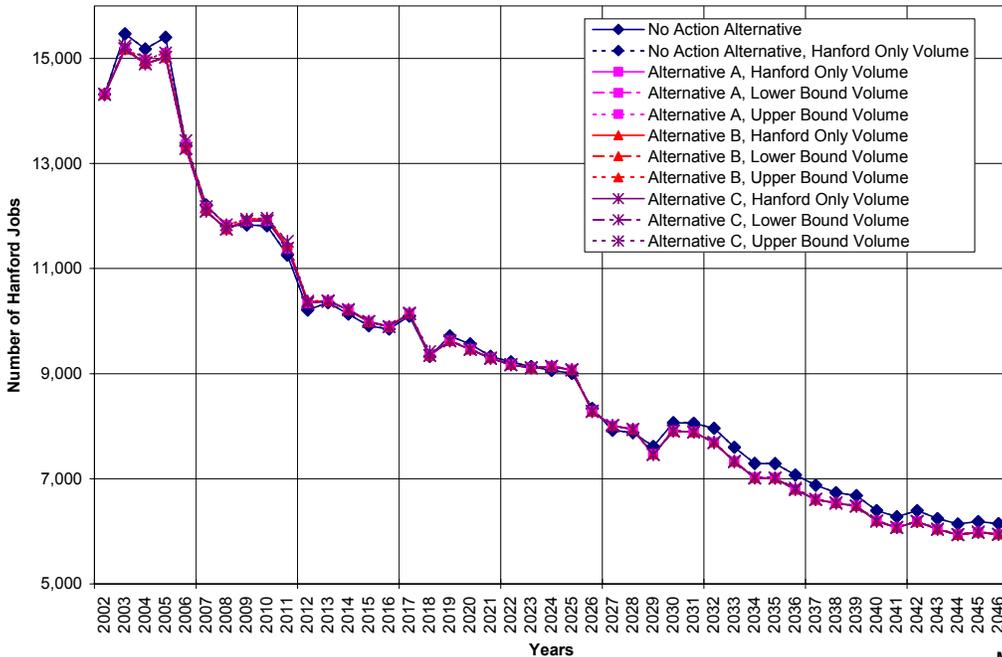
40  
41 Because the time pattern of spending is different under each of the alternatives Figure 5.22 depicts the  
42 level of Hanford employment as a simple way of showing how the solid waste program scenarios  
43 compare both with each other and total Hanford activity over time. Because the Hanford Solid Waste  
44

**Table 5.14.** Hanford Budget and Direct Employment Associated with Baseline Conditions

| Variable                                     | 2002-2009     | 2010-2020     | 2021-2033    | 2034-2046 |
|--|---------------|---------------|--------------|-----------|
| <b>Budget (in Millions)<sup>(a, b)</sup></b> | \$2000-\$2300 | \$1464-\$,240 | \$784-\$2033 | \$540-732 |
| <b>Hanford Jobs<sup>(b)</sup></b>            | 11,700-15,200 | 9200-11,700   | 7500-9200    | 6150-7200 |

(a) Budget is in 2002 dollars.  
 (b) Maximum and minimum during the period. Jobs rounded to nearest 50. These values provide bounds for impacts.

Program is an ongoing function, even the No Action Alternative has changing levels of employment and spending associated with it. For purposes of the socioeconomic analysis, all impacts were calculated as changes from conditions in 2002. For example, Hanford Solid Waste Program employment rises from the 2002 level of roughly 435 to levels over 750, and then eventually declines below 200. The corresponding impacts on direct employment are roughly +350 workers, and -200 workers, relative to current conditions. The analysis calculates the direct and indirect socioeconomic impacts of these changes in direct employment and associated programmatic spending at the Hanford Site. Figure 5.23 shows solid waste program employment in each case relative to the 2002 level. The time patterns of total spending are similar for Alternative Groups A through E, as shown in Figure 5.24. Alternative Groups C, D<sub>1</sub>-D<sub>3</sub>, and E<sub>1</sub>-E<sub>3</sub> all have virtually identical levels of spending and employment in each year, and all are similar to Alternative Group A. To simplify Figures 5.22 through 5.24, Alternative Groups C through E are represented by Alternative Group C.



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**Figure 5.22.** Impact of HSW EIS Alternatives on Total Hanford Employment

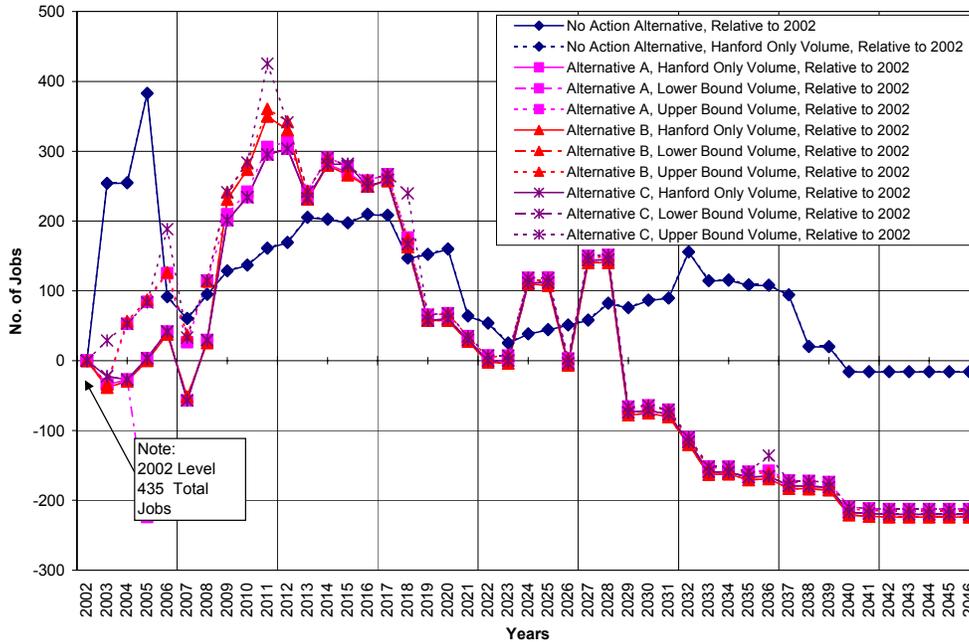


Figure 5.23. Impact of HSW EIS Alternatives on Solid Waste Program Employment

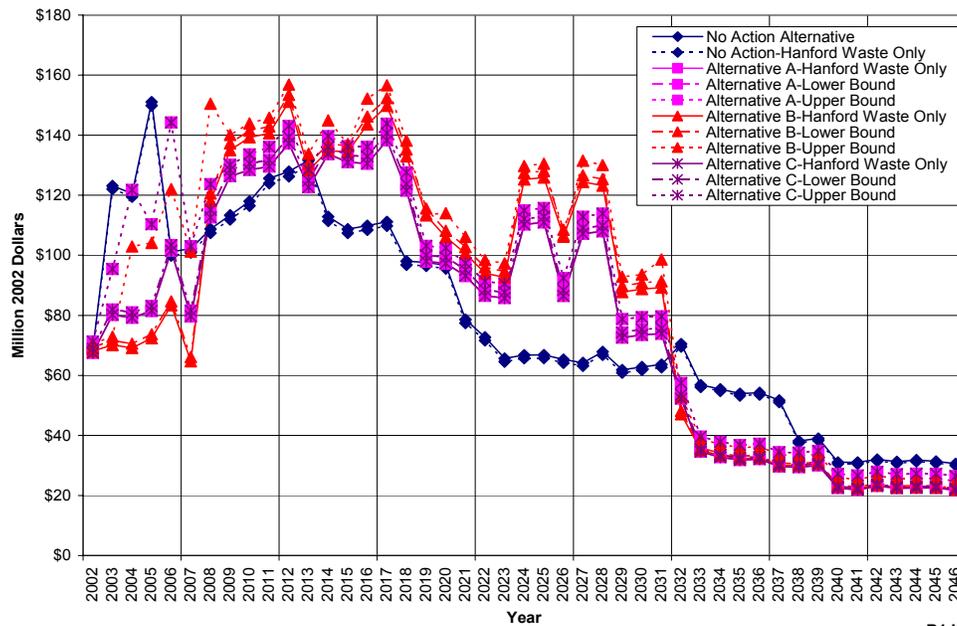


Figure 5.24. Impact of HSW EIS Alternatives on Solid Waste Program Total Cost

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1 Non-labor costs play a relatively larger role in the No Action Alternative (Lower Bound volume), so  
2 that total costs in that case peak in about 2005 at \$150 million and again in 2013 at about \$132 million  
3 and then steadily decline, while employment reaches a plateau, declines between 2017 and 2023,  
4 increases until 2032, and then finally declines for good. All costs are only slightly lower in the No Action  
5 Alternative when only Hanford waste is considered. In analyzing the socioeconomic impacts of the alter-  
6 natives, emphasis was placed on finding years between 2002 and 2046 showing the largest impacts, either  
7 positive or negative. Because the time pattern of spending is different under each of the alternatives, the  
8 largest impacts (positive or negative) sometimes occur in different years.  
9

### 10 **5.6.1 Alternative Group A**

11  
12 Table 5.15 shows the employment and population changes related to construction and operations of  
13 the additional required facilities relative to those expected under baseline conditions for certain key years.  
14

15 For purposes of this analysis, the general level of employment and budget at the Hanford Site is  
16 assumed to otherwise follow the level discussed previously under the baseline conditions. Population  
17 impacts were calculated at 1.3 times total employment impacts, consistent with DOE (1996b). An  
18 unknown number of current Hanford workers could be reassigned to operations activities, reducing  
19 immigration to the region below the estimates shown in this section. Construction activity is assumed to  
20 require a normal proportion of new construction workers coming into the region.  
21

22 Estimates of Hanford primary jobs and budget for LLW, MLLW, and TRU waste operations are  
23 provided in Fluor Hanford, Inc. (FH 2003) for Alternative Group A. Alternative Group A is identified as  
24 Alternative #1 in that document. Primary jobs and budget for ILAW operations were calculated in  
25 support of the ILAW EIS, which now has been merged with this document. For construction activity, FH  
26 (2003) and the ILAW documentation report the construction year or years, total labor-years required, and  
27 schedule. This procedure results in an estimate of the number of jobs by year, consistent with the peak  
28 year and total labor-years required.  
29

30 The solid waste program budget under Alternative Group A is projected to peak in 2016 to 2017, with  
31 employment slightly higher in 2011 to 2012. In 2016, solid waste program employment is expected to be  
32 about 700 for Hanford Only, Lower Bound, and Upper Bound waste volumes, representing an increment  
33 of about 250 to the baseline. Additionally, there is an increment to non-labor procurements of \$81 to  
34 \$86 million relative to the baseline (see Table 5.15). The largest total impact on community employment  
35 (Hanford and non-Hanford workers) in the Tri-Cities region would be about +1350 to +1400 relative to  
36 the baseline in 2011. In Alternative Group A, the level of solid waste program employment and spending  
37 is above that in the No Action Alternative only for the period 2009 through 2017. Employment falls  
38 below 2002 levels beginning about the year 2029, and spending does the same in 2033, reflecting an  
39 incremental reduction in the DOE mortgage (that is, ongoing annual costs of managing and safekeeping  
40 facilities and wastes from former activities) at the Hanford Site. As a result, a slight negative impact  
41 would occur on the economy after about 2032.

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**Table 5.15.** Socioeconomic Impacts Associated with Alternative Group A, Relative to Baseline Conditions<sup>(a)</sup>

| <b>Alternative Group A</b>  | <b>2011</b> | <b>2016</b> | <b>2033</b> | <b>2046</b> |
|---|-------------|-------------|-------------|-------------|
| <b>Solid Waste Program Total Budget (Million 2002\$)</b>  |             |             |             |             |
| Hanford Only Volume   | \$130       | \$130       | \$35        | \$22        |
| Lower Bound Volume  | \$132       | \$133       | \$35        | \$22        |
| Upper Bound Volume  | \$136       | \$136       | \$40        | \$12        |
| <b>Hanford Jobs<sup>(b)</sup></b>   |             |             |             |             |
| Solid Waste Program Total, Hanford Only Volume  | 750         | 700         | 300         | 200         |
| Solid Waste Program Total, Lower Bound Volume   | 750         | 700         | 300         | 200         |
| Solid Waste Program Total, Upper Bound Volume   | 750         | 700         | 300         | 200         |
| <i>Impact, Hanford Only Volume</i>  | 300         | 250         | (150)       | (200)       |
| <i>Impact, Lower Bound Volume</i>   | 300         | 250         | (150)       | (200)       |
| <i>Impact, Upper Bound Volume</i>   | 300         | 250         | (150)       | (200)       |
| <b>Non-Labor Procurements (Million 2002\$)<sup>(b)</sup></b>  |             |             |             |             |
| Solid Waste Program Total, Hanford Only Volume  | \$77        | \$81        | \$14        | \$6         |
| Solid Waste Program Total, Lower Bound Volume   | \$79        | \$83        | \$15        | \$6         |
| Solid Waste Program Total, Upper Bound Volume   | \$83        | \$86        | \$19        | \$10        |
| <i>Impact, Hanford Only Volume</i>  | \$42        | \$45        | (\$21)      | (\$30)      |
| <i>Impact, Lower Bound Volume</i>   | \$42        | \$46        | (\$22)      | (\$30)      |
| <i>Impact, Upper Bound Volume</i>   | \$44        | \$47        | (\$21)      | (\$29)      |
| <b>Tri Cities Area Jobs Impacts<sup>(c)</sup></b>   |             |             |             |             |
| <i>Hanford Only Volume</i>  | 1350        | 1300        | (700)       | (1000)      |
| <i>Lower Bound Volume</i>   | 1350        | 1350        | (700)       | (,000)      |
| <i>Upper Bound Volume</i>   | 1400        | 1350        | (650)       | (950)       |
| <b>Population Change Impacts<sup>(c)</sup></b>  |             |             |             |             |
| <i>Hanford Only Volume</i>  | 1750        | 1700        | (900)       | (1250)      |
| <i>Lower Bound Volume</i>   | 1750        | 1750        | (900)       | (1300)      |
| <i>Upper Bound Volume</i>   | 1800        | 1750        | (850)       | (1250)      |
| <p>(a) Numbers in parentheses denote lower level of activity (negative impact) relative to Baseline Conditions. Area jobs and population rounded to nearest 50.</p> <p>(b) Solid Waste Program totals (1st three lines) and positive or negative impact (change), relative to 2002 (2nd three lines). These impacts provide the basis for area-wide impacts.</p> <p>(c) Maximum positive or negative impact only.</p> |             |             |             |             |

1 Population impact is expected to peak in 2011, with an increase in population of 1750 to 1800,  
2 representing an increase of about 0.9 percent over the 2000 Census<sup>(a)</sup> population of 191,822. Because  
3 most communities can usually handle an increase in population of up to 5 percent without disruption in  
4 services (Gilmore and Duff 1975), the effects on demand for community infrastructure and services  
5 would be small due to the impact of the solid waste program alone. The impact of the long-term  
6 reduction in population of 1250 to 1300 shown in Table 5.15 is less than 0.7 percent of the 2000 baseline.  
7 The infrastructure impacts likely would be very small.

### 8 9 **5.6.2 Alternative Group B**

10  
11 Estimates of Hanford primary jobs and budget for LLW, MLLW, and TRU waste operations and  
12 construction are provided in Fluor Hanford, Inc. (FH 2003) for Alternative Group B. Alternative  
13 Group B is identified as Alternative #2 in that document. Primary jobs and budget for ILAW operations  
14 were calculated in support of the ILAW EIS, which now has been merged with this document.

15  
16 Table 5.16 shows the employment and population changes related to construction and operations of  
17 the additional required facilities relative to those expected under baseline conditions for certain key years.  
18 The scenarios in Alternative Group B achieve their peak positive impact on economic activity in 2016 to  
19 2017, with peak total Tri-Cities employment impact reaching about 1550 above baseline conditions in the  
20 Hanford Only waste volume case and 1650 in the Upper Bound volume case. The peak total of Tri-Cities  
21 employment increases represents a 1.9 percent increase over the 1999 baseline of 88,100 (DOE-RL  
22 2000a), the last year for which complete data are available. After 2030, the largest negative impact on  
23 employment is the loss of 950 to 1000 jobs relative to the baseline in the year 2046.

24  
25 Corresponding population increases and decreases range from +2050 to +2150 in 2016 to -1250 to  
26 -1300 in 2046, representing an increase of about 1.1 percent relative to the 2000 Census population of  
27 191,822 and a decrease of 0.7 percent relative to the 2000 Census value. By themselves, these figures  
28 imply that incremental impact on demand for community infrastructure and services likely would be very  
29 small.

### 30 31 **5.6.3 Alternative Group C**

32  
33 Estimates of Hanford primary jobs and budget for LLW, MLLW, and TRU waste operations and  
34 construction are derived from Fluor Hanford, Inc. (FH 2003) for Alternative Group C. Alternative  
35 Group C costs and employment are assumed to be the same as for Alternative #1 in that document.  
36 Primary jobs and budget for ILAW operations were calculated in support of the ILAW EIS, which now  
37 has been merged with this document.

38  
39 Table 5.17 shows the employment and population changes related to construction and operations of  
40 the additional required facilities relative to those expected under baseline conditions for certain key years.  
41 The scenarios in Alternative Group C achieve their peak positive impact on economic activity in 2011,

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(a) <http://quickfacts.census.gov/qfd/>.

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**Table 5.16.** Socioeconomic Impacts Associated with Alternative Group B, Relative to Baseline Conditions<sup>(a)</sup>

| <b>Alternative Group B</b>  | <b>2011</b> | <b>2016</b> | <b>2033</b>   | <b>2046</b>   |
|---|-------------|-------------|---------------|---------------|
| <b>Solid Waste Program Total Budget (Million 2002\$)</b>  |             |             |               |               |
| Hanford Only Volume   | \$141       | \$144       | \$35          | \$22          |
| Lower Bound Volume  | \$143       | \$146       | \$36          | \$22          |
| Upper Bound Volume  | \$146       | \$152       | \$39          | \$25          |
| <b>Hanford Jobs<sup>(b)</sup></b>   |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | 800         | 700         | 300           | 200           |
| Solid Waste Program Total, Lower Bound Volume   | 800         | 700         | 300           | 200           |
| Solid Waste Program Total, Upper Bound Volume   | 800         | 700         | 300           | 200           |
| <i>Impact, Hanford Only Volume</i>  | <i>350</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <i>Impact, Lower Bound Volume</i>   | <i>350</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <i>Impact, Upper Bound Volume</i>   | <i>350</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <b>Non-Labor Procurements (Million 2002\$)<sup>(b)</sup></b>  |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | \$84.       | \$94        | \$15          | \$6           |
| Solid Waste Program Total, Lower Bound Volume   | \$87        | \$96        | \$16          | \$7           |
| Solid Waste Program Total, Upper Bound Volume   | \$89        | \$102       | \$18          | \$8           |
| <i>Impact, Hanford Only Volume</i>  | <i>\$50</i> | <i>\$59</i> | <i>(\$22)</i> | <i>(\$30)</i> |
| <i>Impact, Lower Bound Volume</i>   | <i>\$50</i> | <i>\$59</i> | <i>(\$22)</i> | <i>(\$30)</i> |
| <i>Impact, Upper Bound Volume</i>   | <i>\$51</i> | <i>\$63</i> | <i>(\$20)</i> | <i>(\$30)</i> |
| <b>Tri Cities Area Jobs Impacts<sup>(c)</sup></b>   |             |             |               |               |
| <i>Hanford Only Volume</i>  | <i>1600</i> | <i>1550</i> | <i>(700)</i>  | <i>(1000)</i> |
| <i>Lower Bound Volume</i>   | <i>1600</i> | <i>1550</i> | <i>(700)</i>  | <i>(1000)</i> |
| <i>Upper Bound Volume</i>   | <i>1600</i> | <i>1650</i> | <i>(650)</i>  | <i>(950)</i>  |
| <b>Population Change Impacts<sup>(c)</sup></b>  |             |             |               |               |
| <i>Hanford Only Volume</i>  | <i>2050</i> | <i>2050</i> | <i>(950)</i>  | <i>(1300)</i> |
| <i>Lower Bound Volume</i>   | <i>2050</i> | <i>2050</i> | <i>(950)</i>  | <i>(1300)</i> |
| <i>Upper Bound Volume</i>   | <i>2100</i> | <i>2150</i> | <i>(850)</i>  | <i>(1250)</i> |
| <p>(a) Numbers in parentheses denote lower level of activity (negative impact) relative to Baseline Conditions. Area jobs and population rounded to nearest 50.</p> <p>(b) Solid Waste Program totals (1st three lines) and positive or negative impact (change), relative to 2002 (2nd three lines). These impacts provide the basis for area-wide impacts.</p> <p>(c) Maximum positive or negative impact only.</p> |             |             |               |               |

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**Table 5.17.** Socioeconomic Impacts Associated with Alternative Group C, Relative to Baseline Conditions<sup>(a)</sup>

| <b>Alternative Group C</b>  | <b>2011</b> | <b>2016</b> | <b>2033</b>   | <b>2046</b>   |
|---|-------------|-------------|---------------|---------------|
| <b>Solid Waste Program Total Budget (Million 2002\$)</b>  |             |             |               |               |
| Hanford Only Volume   | \$130       | \$131       | \$35          | \$22          |
| Lower Bound Volume  | \$132       | \$133       | \$35          | \$22          |
| Upper Bound Volume  | \$136       | \$136       | \$40          | \$26          |
| <b>Hanford Jobs<sup>(b)</sup></b>   |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | 750         | 700         | 300           | 200           |
| Solid Waste Program Total, Lower Bound Volume   | 750         | 700         | 300           | 200           |
| Solid Waste Program Total, Upper Bound Volume   | 850         | 700         | 300           | 200           |
| <i>Impact, Hanford Only Volume</i>  | <i>300</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <i>Impact, Lower Bound Volume</i>   | <i>300</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <i>Impact, Upper Bound Volume</i>   | <i>400</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <b>Non-Labor Procurements (Million 2002\$)<sup>(b)</sup></b>  |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | \$77        | \$81        | \$14          | \$6           |
| Solid Waste Program Total, Lower Bound Volume   | \$79        | \$83        | \$15          | \$6           |
| Solid Waste Program Total, Upper Bound Volume   | \$75        | \$86        | \$19          | \$10          |
| <i>Impact, Hanford Only Volume</i>  | <i>\$42</i> | <i>\$45</i> | <i>(\$21)</i> | <i>(\$30)</i> |
| <i>Impact, Lower Bound Volume</i>   | <i>\$42</i> | <i>\$46</i> | <i>(\$22)</i> | <i>(\$30)</i> |
| <i>Impact, Upper Bound Volume</i>   | <i>\$36</i> | <i>\$47</i> | <i>(\$21)</i> | <i>(\$29)</i> |
| <b>Tri Cities Area Jobs Impacts<sup>(c)</sup></b>   |             |             |               |               |
| <i>Hanford Only Volume</i>  | <i>1350</i> | <i>1300</i> | <i>(700)</i>  | <i>(1000)</i> |
| <i>Lower Bound Volume</i>   | <i>1350</i> | <i>1350</i> | <i>(700)</i>  | <i>(1000)</i> |
| <i>Upper Bound Volume</i>   | <i>1500</i> | <i>1350</i> | <i>(650)</i>  | <i>(950)</i>  |
| <b>Population Change Impacts<sup>(c)</sup></b>  |             |             |               |               |
| <i>Hanford Only Volume</i>  | <i>1750</i> | <i>1700</i> | <i>(900)</i>  | <i>(1250)</i> |
| <i>Lower Bound Volume</i>   | <i>1750</i> | <i>1750</i> | <i>(900)</i>  | <i>(1300)</i> |
| <i>Upper Bound Volume</i>   | <i>1950</i> | <i>1750</i> | <i>(850)</i>  | <i>(1250)</i> |
| <p>(a) Numbers in parentheses denote lower level of activity (negative impact) relative to Baseline Conditions. Area jobs and population rounded to nearest 50.</p> <p>(b) Solid Waste Program totals (1st three lines) and positive or negative impact (change), relative to 2002 (2nd three lines). These impacts provide the basis for area-wide impacts.</p> <p>(c) Maximum positive or negative impact only.</p> |             |             |               |               |

1 with peak total Tri-Cities employment impact reaching about 1350 above baseline conditions in the  
2 Hanford Only waste volume case and 1500 in the Upper Bound volume case. The peak total of Tri-Cities  
3 employment increases represents a 1.7 percent increase over the 1999 baseline of 88,100 (DOE-RL  
4 2000a), the last year for which complete data are available. After 2030, the largest negative impact on  
5 employment is the loss of 950 to 1000 jobs relative to the baseline in the year 2046.  
6

7 Corresponding population increases and decreases range from +1750 to +1950 in 2011 to -1250 to  
8 -1300 in 2046, representing an increase of about 1.0 percent relative to the 2000 Census population of  
9 191,822 and a decrease of 0.7 percent relative to the 2000 Census value. By themselves, these figures  
10 imply that incremental impact on demand for community infrastructure and services likely would be very  
11 small.  
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#### 13 **5.6.4 Alternative Group D**

14  
15 Estimates of Hanford primary jobs and budget for LLW, MLLW, and TRU waste operations and  
16 construction are derived from Fluor Hanford, Inc. (FH 2003) for Alternative Group D. Alternative Group  
17 D costs and employment are assumed to be the same as for Alternative #1 in that document, scaled for the  
18 volumes of waste handled. Primary jobs and budget for ILAW operations were calculated in support of  
19 the ILAW EIS, which now has been merged with this document. It is assumed there is no difference in  
20 cost and employment among Alternative Groups D<sub>1</sub>, D<sub>2</sub>, and D<sub>3</sub>, as similar activities are conducted in  
21 different onsite locations that have similar characteristics.  
22

23 Table 5.18 shows the employment and population changes related to construction and operations of  
24 the additional required facilities relative to those expected under baseline conditions for certain key years.  
25 The scenarios in Alternative Group D achieve their peak positive impact on economic activity in 2011,  
26 with peak total Tri-Cities employment impact reaching about 1350 above baseline conditions in the  
27 Hanford Only waste volume case and 1600 in the Upper Bound volume case. The peak total of Tri-Cities  
28 employment increases represents a 1.8 percent increase over the 1999 baseline of 88,100 (DOE-RL  
29 2000a), the last year for which complete data are available. After 2030, the largest negative impact on  
30 employment is the loss of 1000 to 1050 jobs relative to the baseline in the year 2046.  
31

32 Corresponding population increases and decreases range from +1750 to +2050 in 2011 to -1300 to  
33 -1400 in 2046, representing a net increase of about 1.1 percent relative to the 2000 Census population of  
34 191,822 and a decrease of 0.7 percent relative to the 2000 Census value. By themselves, these figures  
35 imply that incremental impact on demand for community infrastructure and services likely would be very  
36 small.  
37

#### 38 **5.6.5 Alternative Group E**

39  
40 Estimates of Hanford primary jobs and budget for LLW, MLLW, and TRU waste operations and  
41 construction are derived from Fluor Hanford, Inc. (FH 2003) for Alternative Group E. Alternative  
42 Group E costs and employment are assumed to be the same as for Alternative #1 in that document, scaled  
43 for the volumes of waste handled. Primary jobs and budget for ILAW operations were calculated in  
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**Table 5.18.** Socioeconomic Impacts Associated with Alternative Group D, Relative to Baseline Conditions<sup>(a)</sup>

| <b>Alternative Group D</b>  | <b>2011</b> | <b>2016</b> | <b>2033</b>   | <b>2046</b>   |
|---|-------------|-------------|---------------|---------------|
| <b>Solid Waste Program Total Budget (Million 2002\$)</b>  |             |             |               |               |
| Hanford Only Volume   | \$131       | \$132       | \$35          | \$22          |
| Lower Bound Volume  | \$134       | \$136       | \$36          | \$23          |
| Upper Bound Volume  | \$151       | \$152       | \$46          | \$31          |
| <b>Hanford Jobs<sup>(b)</sup></b>   |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | 750         | 700         | 300           | 200           |
| Solid Waste Program Total, Lower Bound Volume   | 750         | 700         | 300           | 200           |
| Solid Waste Program Total, Upper Bound Volume   | 850         | 700         | 300           | 200           |
| <i>Impact, Hanford Only Volume</i>  | <i>300</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <i>Impact, Lower Bound Volume</i>   | <i>300</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <i>Impact, Upper Bound Volume</i>   | <i>450</i>  | <i>250</i>  | <i>(150)</i>  | <i>(200)</i>  |
| <b>Non-Labor Procurements (Million 2002\$)<sup>(b)</sup></b>  |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | \$79        | \$83        | \$15          | \$6           |
| Solid Waste Program Total, Lower Bound Volume   | \$82        | \$86        | \$16          | \$7           |
| Solid Waste Program Total, Upper Bound Volume   | \$89        | \$102       | \$25          | \$14          |
| <i>Impact, Hanford Only Volume</i>  | <i>\$42</i> | <i>\$46</i> | <i>(\$22)</i> | <i>(\$30)</i> |
| <i>Impact, Lower Bound Volume</i>   | <i>\$43</i> | <i>\$48</i> | <i>(\$22)</i> | <i>(\$31)</i> |
| <i>Impact, Upper Bound Volume</i>   | <i>\$40</i> | <i>\$54</i> | <i>(\$24)</i> | <i>(\$34)</i> |
| <b>Tri Cities Area Jobs Impacts<sup>(c)</sup></b>   |             |             |               |               |
| <i>Hanford Only Volume</i>  | <i>1350</i> | <i>1350</i> | <i>(700)</i>  | <i>(1000)</i> |
| <i>Lower Bound Volume</i>   | <i>1350</i> | <i>1350</i> | <i>(700)</i>  | <i>(1000)</i> |
| <i>Upper Bound Volume</i>   | <i>1600</i> | <i>1450</i> | <i>(750)</i>  | <i>(1050)</i> |
| <b>Population Change Impacts<sup>(c)</sup></b>  |             |             |               |               |
| <i>Hanford Only Volume</i>  | <i>1750</i> | <i>1750</i> | <i>(900)</i>  | <i>(1300)</i> |
| <i>Lower Bound Volume</i>   | <i>1800</i> | <i>1750</i> | <i>(950)</i>  | <i>(1300)</i> |
| <i>Upper Bound Volume</i>   | <i>2050</i> | <i>1900</i> | <i>(950)</i>  | <i>(1400)</i> |
| <p>(a) Numbers in parentheses denote lower level of activity (negative impact) relative to Baseline Conditions. Area jobs and population rounded to nearest 50.</p> <p>(b) Solid Waste Program totals (1st three lines) and positive or negative impact (change), relative to 2002 (2nd three lines). These impacts provide the basis for area-wide impacts.</p> <p>(c) Maximum positive or negative impact only.</p> |             |             |               |               |

1 support of the ILAW EIS, which now has been merged with this document. Primary jobs and budget for  
2 Alternative Group E ILAW operations are assumed to be the same as in Alternative Group D. It is  
3 assumed there is no difference in cost and employment among Alternative Groups E<sub>1</sub>, E<sub>2</sub>, and E<sub>3</sub>, as  
4 similar activities are conducted in different onsite locations that have similar characteristics.

5  
6 Impacts on employment and population are the same as Alternative Group D (see Section 5.6.4).

### 8 **5.6.6 No Action Alternative**

9  
10 Estimates of Hanford primary jobs and budget for LLW, MLLW, and TRU waste construction and  
11 operations are provided in Fluor Hanford, Inc. (FH 2003) for the No Action Alternative, Lower Bound  
12 volume. Costs and budget for the No Action Alternative with the Hanford Only waste volume are nearly  
13 the same as for the Lower Bound volume and are derived by scaling for the slightly lower volume of  
14 wastes handled in the Hanford Only waste volume case. Primary jobs and budget for ILAW operations  
15 were calculated in support of the ILAW EIS, which now has been merged with this document.

16  
17 Total employment at Hanford is currently expected to increase by as much as 3000 jobs (from the  
18 2001 level of 12,000, the last year of historical data) through 2005, as the Hanford Waste Treatment Plant  
19 is constructed and begins operations (see Figure 5.22). Overall, the activity associated with the No  
20 Action Alternative would add increases in annual budgets of as much as \$150 million in 2005 (an  
21 increase of \$82 million from the level in 2002) and up to 400 additional jobs onsite to this baseline. After  
22 2040, employment in solid waste management operations would fall to about the baseline value, as shown  
23 in Figure 5.23; while the solid waste management budget would decline below the 2002 level by 2033  
24 (see Figure 5.24). Overall, the Tri-Cities socioeconomic conditions would continue as they currently are,  
25 with employment increasing and fluctuating in the short run and generally declining over the long-term.

26  
27 Table 5.19 shows the current solid waste program budget, employment, and estimated non-labor  
28 procurements that would continue under the No Action Alternative.

29  
30 In 2002, the solid waste management program (including ILAW) required a total budget of about  
31 \$68 million and employed slightly over 400 workers. As shown in Figure 5.23, in 2005 (the highest  
32 direct employment year), about 400 additional employees beyond 2002 levels would be needed to operate  
33 and support the solid waste program (over 800 total). This is also the year with the largest impact on total  
34 community employment (Hanford and non-Hanford workers), with about 1750 workers needed beyond  
35 baseline levels (see Table 5.19). This impact relative to 2002 is noticeable but not large (about 2 percent  
36 of the 1999 base of 88,100 total non-farm jobs) (DOE-RL 2000a). Area population might increase above  
37 baseline by as many as 2300 people, or about 1.2 percent of the 2000 Census population of 191,822.<sup>(a)</sup>

38  

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(a) <http://quickfacts.census.gov/qfd/>.

1  
2  
3

**Table 5.19.** Socioeconomic Impacts Associated with the No Action Alternative, Relative to Baseline Conditions<sup>(a)</sup>

| No Action Alternatives  | 2005        | 2013        | 2032          | 2046          |
|---|-------------|-------------|---------------|---------------|
| <b>Solid Waste Program Total Budget (Million 2002\$)</b>  |             |             |               |               |
| Hanford Only Volume   | \$150       | \$130       | \$70          | \$30          |
| Lower Bound Volume  | \$150       | \$132       | \$70          | \$31          |
| <b>Hanford Jobs<sup>(b)</sup></b>   |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | 800         | 650         | 600           | 400           |
| Solid Waste Program Total, Lower Bound Volume   | 800         | 650         | 600           | 400           |
| <i>Impact, Hanford Only Volume</i>  | <i>400</i>  | <i>200</i>  | <i>150</i>    | <i>(0)</i>    |
| <i>Impact, Lower Bound Volume</i>   | <i>400</i>  | <i>200</i>  | <i>150</i>    | <i>(0)</i>    |
| <b>Non-Labor Procurements (Million 2002\$)<sup>(b)</sup></b>  |             |             |               |               |
| Solid Waste Program Total, Hanford Only Volume  | \$90        | \$83        | \$26          | (\$1)         |
| Solid Waste Program Total, Lower Bound Volume   | \$91        | \$85        | \$27          | (\$0)         |
| <i>Impact, Hanford Only Volume</i>  | <i>\$54</i> | <i>\$47</i> | <i>(\$10)</i> | <i>(\$37)</i> |
| <i>Impact, Lower Bound Volume</i>   | <i>\$54</i> | <i>\$48</i> | <i>(\$10)</i> | <i>(\$37)</i> |
| <b>Tri Cities Area Jobs Impact<sup>(c)</sup></b>  |             |             |               |               |
| <i>Impact, Hanford Only Volume</i>  | <i>1750</i> | <i>1250</i> | <i>150</i>    | <i>(700)</i>  |
| <i>Impact, Lower Bound Volume</i>   | <i>1750</i> | <i>1300</i> | <i>150</i>    | <i>(700)</i>  |
| <b>Population Change Impacts<sup>(c)</sup></b>  |             |             |               |               |
| <i>Impact, Hanford Only Volume</i>  | <i>2300</i> | <i>1650</i> | <i>200</i>    | <i>(900)</i>  |
| <i>Impact, Lower Bound Volume</i>   | <i>2300</i> | <i>1650</i> | <i>200</i>    | <i>(900)</i>  |
| (a) Numbers in parentheses denote lower level of activity (negative impact) relative to Baseline Conditions. Area jobs and population rounded to nearest 50.<br>(b) Solid Waste Program total (1st two lines) and positive or negative impact (change), relative to 2002 (2nd two lines). These impacts provide the basis for area-wide impacts.<br>(c) Maximum positive or negative impact only. |             |             |               |               |

4