

Hanford, Diversification, and the Tri-Cities Economy

FY 1998



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Growing a strong, diverse, and healthy local economy is a top priority of this community, which over the past 50 years has experienced significant cyclical periods of economic growth as well as downturns due to varying levels of federal funding of Hanford activities.

In recent years, the Department of Energy and its contractors have been partnering with the community and its local governments to grow new businesses and attract new industries to the Tri-Cities. This economic analysis prepared for the Richland Operations Office shows these efforts are resulting in new jobs and increased payrolls for the community; both are positive signs that strong economic diversification programs are in place. In fiscal year 1998, economic diversification efforts along with Hanford privatization activities resulted in an increase of 1,550 jobs. During this same period, Hanford employment declined slightly while the community experienced a population increase of 4,000 people from 1997. Continued progress is expected this fiscal year 1999, where diversification and privatization efforts are projected to lead to an increase of more than 1,600 jobs and \$62 million in wage income for the local economy.

This report, *Hanford, Diversification, and the Tri-Cities Economy FY1998*, provides a detailed assessment of the economic impacts of Hanford within the overall economic portrait of the Tri-Cities, and the community's progress to date with economic diversification efforts. Also found within the report are descriptions of various factors that contribute to the economic structure of the Tri-Cities, including DOE and Hanford impacts on the local tax base, population, schools and public services, agriculture, traditional major employers, and new employers.

The Department of Energy and its contractors are pleased to be contributing to the community's efforts that are helping diversify the local economy, and look forward to continued progress and success in this important objective.


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At a Glance: Hanford's Role in the Tri-Cities Economy

- The U.S. Department of Energy (DOE) and its contractors continue to have the most significant impact of any entity on the Tri-Cities economy. In fiscal year (FY) 1998, Hanford's payrolls and local purchases of goods and services contributed about \$765 million to the local economy. Through direct Hanford employment plus indirect jobs stemming from Hanford work, DOE's FY 1998 budget of \$1.6 billion accounted for about 36% of all local employment and up to 64% of local wage income.
- The DOE budget in FY 1999 of about \$1.6 billion is expected to result in approximately constant Hanford employment, slight increases in payrolls, and constant local procurements. This additional spending should result in about 300 additional jobs and \$29 million in wage income in the Tri-Cities community. This additional employment would be reflected in independent technical and consulting services, construction, manufacturing, and real estate.
- Additional good news is that strong economic diversification efforts by DOE, its contractors, and community organizations are adding growth on top of this currently stable base. These new sources of growth are expected to add a net 1,300-plus additional jobs and \$33 million in additional wage income to the community in FY 1999, for a total of more than 1,600 jobs and \$62 million in wage income. The impact would be even stronger, except for an expected weaker year in agriculture.
- DOE and its contractors have played a significant role in economic diversification by providing economic transition funding and in-kind assistance. Examples include support of facilities for business startups and technology commercialization; assistance for new businesses; transfer of manufacturing equipment to municipal, commercial, and educational organizations; privatization of Hanford activities; support of Hanford staff entrepreneurial programs; and partnerships with investors to encourage outside industries to locate to the community.
- Acting both in cooperation with DOE and independently, the Tri-Cities Industrial Development Council and 42 local organizations have contributed significantly to community economic diversification. The fruits of these combined business recruitment and development efforts paid off in FY 1998 with 913 new direct jobs and \$32 million in wages. In FY 1999, it is estimated that continuing economic development activities by all organizations will result in an additional 800-plus direct jobs and about \$25 million in income. Balancing these increases against the agriculture's economic losses still results in a net increase of jobs and wages, as noted above.

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Hanford, Diversification, and the Tri-Cities Economy FY 1998



Summary

The missions of the U.S. Department of Energy's Richland Operations Office (DOE/RL) are to safely manage the Hanford Site, to manage and clean up its legacy wastes, and to develop and deploy new science and technology in the environmental and energy fields. Collectively, DOE/RL and its contractors are the most important single entity in the Tri-Cities local economy (Pasco, Kennewick, and Richland, Washington, and the surrounding area). Although the relevant economic region affected by DOE/RL and its contractors actually embraces a geographic area reaching from Yakima in the west to Walla Walla in the east and from Moses Lake in the north to Pendleton, Oregon, in the south, over 90% of economic impacts likely occur in Benton and Franklin Counties. These two counties are defined as the "local" Tri-Cities economy for purposes of this study (see Figure 1).

In the federal fiscal year (FY) 1998 (October 1, 1997 through September 30, 1998), the total impact of DOE's local \$1.6 billion budget was felt through payrolls of \$519 million and local purchases of goods and services of \$246 million. The total local spending of \$765 million was down slightly from the FY 1997 total of \$774 million. Taking into account the slightly greater multiplier

The Hanford economic region is centered on Benton and Franklin counties (shaded area).

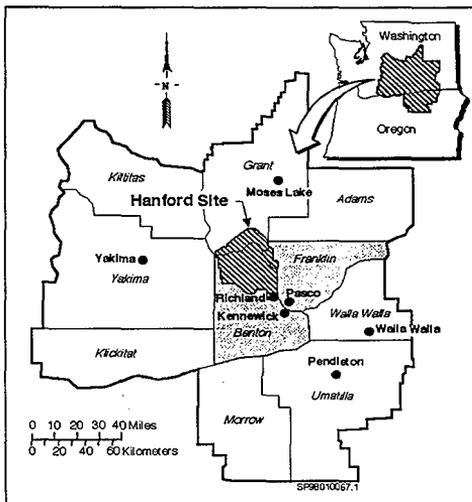


Figure 1. Hanford Site and Surrounding Region

Multiplier Effect

Hanford expenditures have a direct effect on employment in the community. As workers spend their wages and DOE and its contractors purchase goods and services in the community, they generate additional, non-Hanford retail and service jobs and income. This is known as the *multiplier effect*. Together, the direct plus indirect effects are called *total effects*. Besides DOE, other local industries with these multiplier effects include agriculture, other industrial employers, and regional services.

effects of this spending due to changes in its mix, the DOE/RL budget sustained an estimated 36% of all local employment (31,200 out of 86,000 jobs) and up to 64% of local wage income (\$1.55 billion out of \$2.40 billion). This was up slightly from the year before (29,500 jobs, \$1.49 billion income). DOE budget increases in FY 1999 are expected to result in a net increase of about 200 local DOE contractor jobs over the September 30, 1998 level, or about equal to the FY 1998 average. In addition, economic diversification more than offset the impact of the local DOE losses in FY 1998 and, together with an initial economic boost from privatization of Hanford's tank waste cleanup, is expected to play a significant expansive role in FY 1999. All of these positives, taken together with their multiplier effects, would directly or indirectly add a total 2,750 jobs and at least \$135 million in income to the economy. However, agriculture and related regional services are expected to be weaker than in FY 1998, offsetting part of these gains. The overall net effect still is expected to be a *net* increase of 2,050 jobs and \$86 million in wage income.

DOE's Historical Effect on the Economy

Ever since the early 1940s, the economy of Benton and Franklin Counties in the state of Washington has been highly dependent on the level of activity at DOE contractors operating the Hanford Nuclear Reservation (otherwise known as the Hanford Site) and the nearby Pacific Northwest National Laboratory (PNNL). For example, Figure 2 shows that nonagricultural employment since 1970 has closely mirrored DOE contractor employment except in the late 1970s and early 1980s, when nuclear power plant construction also was a significant factor.

With the end of the Cold War, the primary mission of the Hanford Site changed from one of production of nuclear materials for the nation's defense program to one of environmental cleanup and restoration. To better serve this new mission, in 1996 DOE/RL restructured the



Figure 2. Total Tri-Cities Non-Agricultural Employment vs. Employment in Key Sectors

manner in which much of the work is accomplished at Hanford, replacing the main management and operations (M&O) contract with a Project Hanford Management Contract (PHMC) that integrates a larger group of specialty firms under the general management of an integrating contractor. This change already has significantly changed the balance between Site employment and procurements, altering Hanford's role in the regional economy. As the Hanford Site completes its environmental mission over the next few years, the level of activity at Hanford is expected to decline significantly. Consequently, the local community in Benton and Franklin Counties has begun a process of diversification on several fronts to reduce the region's dependency on the Hanford Site and to replace the declining Hanford portion of the area's economic base.

Many organizations and individuals are interested both in the current impact of DOE/RL and its contractors on the Tri-Cities economy and in the progress of local economic diversification efforts. This report provides a comprehensive view of the economic role of DOE/RL and its contractors in the Tri-Cities economy during FY 1998 and discusses the impact of the diversification efforts to date.

Table 1. DOE/RL Economic Facts, FY 1998

| FY 1998 Budget Authority (Million \$) | |
|---|----------------|
| Environmental Management (EM) activities | \$1,099 |
| Non-EM programs | 373 |
| Tank waste privatization (not available for current spending) | \$150 |
| Total FY 1998 budget | \$1,622 |
| Employment (Annual Average) | |
| Federal | 520 |
| Contractors | 9,900 |
| Spending (Million \$) | |
| Payroll | \$519 |
| Local procurements | \$114 |
| Spending at enterprise companies | \$132 |

Overview of DOE Budget, Employment, and Spending

The government authorized the spending of about \$1.6 billion at Hanford and PNNL in FY 1998 (Table 1). This was slightly lower than the total of \$1.7 billion in FY 1997 and continued a downward trend in Hanford Site funding that last peaked in FY 1994 and FY 1995, when the total local DOE budget was \$1.9 billion. About two-thirds of the FY 1998 budget was spent for Environmental Management (EM) activities, while the second biggest component, non-EM programs, mainly reflects the numerous and diverse science and technological development projects at PNNL. The \$150 million was obligated for tank waste privatization and was not available for current spending.

DOE/RL employed an average of 520 Federal employees and 9,900 contractor employees during FY 1998. By year end, contractor employment had fallen to 9,635. In FY 1997, the year before average contractor employment was 10,600 and year-end employment was 10,150. In FY 1997, almost 2,200 employees of the former M&O contractor were moved into six "enterprise companies" (ENCos), and ceased to be counted as "inside the fence" (that is, as Hanford employees). The idea was that by the end of two years these companies would be able to competitively capture and perform both Hanford and non-Hanford work. During FY 1998, the vast majority of these workers (more than 90%) were performing work for the Hanford Site. By the end of FY 1998, about 100-150 jobs of the 1,900 jobs at the enterprise companies were non-Hanford jobs.

| Table 2. DOE/RL and its Contractors are the Largest Element in the Tri-Cities' Economic Base | |
|---|----------------|
| Total Impacts, FY 1998 | |
| Impact of contractor payrolls on Tri-Cities employment | 20,550 jobs |
| Impact of contractor payrolls on Tri-Cities income | \$1.01 billion |
| Impact of procurements and payments to ENCOs on total Tri-Cities employment | 10,650 jobs |
| Impact of Hanford procurements and ENCO payments on total Tri-Cities income | \$538 million |
| Note: Includes direct jobs and payroll. Total jobs in the economy = 86,000 Total wage income = \$2.40 B | |

The DOE budget affects the local economy both through purchases of goods and services by DOE/RL and its contractors and through spending of payroll dollars by their employees. For example, in FY 1998 the DOE/RL contractors spent almost \$114 million on procurements in the Tri-Cities. Of this amount, roughly 75% was for various business services, 16% for trade, and about 1% for construction (Figure 3). The site also bought \$132 million worth of services from ENCOs in FY 1998. The Tri-Cities captured about 39% of all DOE/RL contractor procurements in FY 1998.

Effects of Payrolls and Procurements

Even after recent downsizing, the Hanford Site was still the largest single source of employment in the Tri-Cities at the end of September 1998, with 9,635 direct employees. The number employed is the smallest since 1975, but still represents roughly 12% of the jobs in the economy and directly represents about 21% of the total wage income in the area. Direct procurements plus subcontracts by the DOE contractors represented 11-12% of the total sales in the Tri-Cities economy during FY 1998, about the same as the year before.

PNNL with the support of PHMC has taken responsibility for providing both assessments and forecasts of the Tri-Cities economy. The PNNL model of the Tri-Cities economy calculates the impact of Hanford payrolls and other spending. In FY 1998, the model shows that about 20,550 total Tri-Cities jobs were supported directly or indirectly by the Hanford payroll and about 10,650 by procurements and the ENCO contracts, for a total of 31,200 (Table 2). This represents 36% of the jobs in the economy. Fully 64% of the wage income in the economy (\$1.55 billion out of \$2.40 billion) may depend directly or indirectly on Hanford payrolls and procurements.

Hanford FY 1998 Contractor Procurements in Tri-Cities by Selling Industry

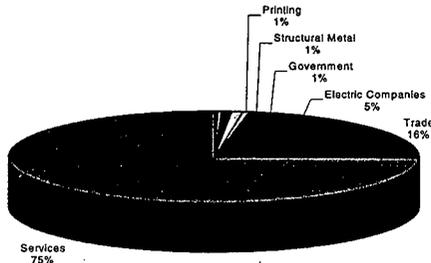


Figure 3. DOE/RL Contractor Procurements in the Tri-Cities by Selling Industry, FY 1998

Table 3. DOE Payments in Lieu of Taxes and Contractor and Employee Tax Payments to Local Governments in FY 1998

| Source | Amount |
|--|----------------|
| DOE payments in lieu of taxes | \$5.7 million |
| Contractor sales and use taxes | \$0.7 million |
| Contractor property taxes | \$0.8 million |
| Employee sales and use taxes (local share) | \$7.0 million |
| Employee property taxes (local share) | \$18.7 million |

Impact on the Local Tax Base

The DOE contractors mainly conduct work for the federal government in facilities owned by the federal government. This work generally is not subject to Washington State sales taxes, nor are the federal facilities on the tax rolls. Instead, the federal government makes payments in lieu of taxes to local governments and taxing districts. In FY 1998, the federal government disbursed a total of \$5.7 million (Table 3). The contractors paid \$0.7 million in local sales and use taxes (use taxes are paid on use of selected equipment instead of the sales tax), as well as \$0.8 million property taxes on their own property (for example, Battelle, which operates PNNL, owns \$35 million worth of facilities in north Richland). Also, contractors paid \$6.4 million in Washington State Business and Occupation Tax and some portion of taxes paid on rental facilities owned by private companies (data are not readily available on these items). Finally, based on their incomes, the employees of DOE and the contractors paid an estimated \$7.0 million in sales taxes and an estimated \$18.7 million in property taxes. In all, direct Hanford-related taxes in FY 1998 represented about 24% of sales and use taxes in Benton and Franklin counties and about 16% of total local property tax collections.

Table 4. Population, Schools, Public Services, and Infrastructure

| Economic Factor | Year and Value |
|---|------------------|
| Total population, Benton and Franklin counties | 1994 - 169,900 |
| | 1995 - 175,000 |
| | 1996 - 174,700 |
| | 1997 - 177,900 |
| | 1998 - 181,900 |
| Head count school enrollment, Benton and Franklin counties school districts | 1994 - 37,073 |
| | 1995 - 37,549 |
| | 1996 - 38,180 |
| | 1997 - 38,541 |
| | 1998 - 38,851 |
| Recent average housing values by fiscal year | 1994 - \$119,200 |
| | 1995 - \$112,700 |
| | 1996 - \$109,500 |
| | 1997 - \$115,300 |
| | 1998 - \$115,700 |
| Housing starts by fiscal year | 1994 - 1,117 |
| | 1995 - 433 |
| | 1996 - 667 |
| | 1997 - 557 |
| | 1998 - 639 |
| 4 th quarter apartment vacancies, Tri-Cities, by fiscal year | 1994 - 5.0% |
| | 1995 - 11.5% |
| | 1996 - 18.0% |
| | 1997 - 12.0% |
| | 1998 - 10.0% |

Population, Schools, Public Services, and Infrastructure

Historically, changes in employment at Hanford have been one of the major drivers of change in the population of Benton and Franklin Counties. From 1994 to 1998, however, it appears that there was a change in this historical relationship. Despite the loss of some 9,550 positions at Hanford (from 19,200 in July 1994 to under 9,650 by September 1998), and a corresponding decline of 3,600 in total non-agricultural employment (75,500 in September 1994 to 71,900 in September 1998), population in the area has actually risen (Table 4). The demographers at the state of Washington Office of Financial Management estimate that the population of Benton and Franklin counties increased from 169,900 in 1994 to 181,900 in 1998. The reasons for this increase are not clear. The increase in population also is reflected in the school-age population for the 10 local public school districts in the two-county area.

The accompanying chart of Tri-Cities housing prices for the last 10 years (Figure 4) shows the strong effect that changes at the Hanford Site had on the real estate market during that time, especially 1989–1994 (3-month averages are used to smooth month-to-month volatility). Beginning with the start of downsizing in July 1994, prices initially declined, but then appeared to recover and then stabilize. Table 4 data on housing starts show that there was considerable fall-off in construction from 1994 to 1995; but construction then recovered slightly, reflecting the fact that the population and economy have not declined as expected with this downturn in DOE contractor employment. Data on the rental markets for the area do reflect a generally soft market, but not as significant a decrease as has happened with some past Hanford-related declines.

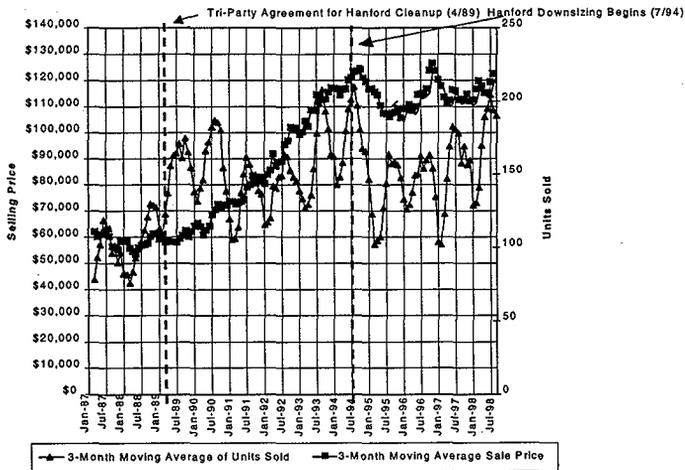


Figure 4. Three-Month Moving Average of Tri-Cities Housing Activity

Corporate Community Contributions

The DOE contractors and DOE/RL play a major role in the community as corporate citizens. In FY 1998, the PHMC contractors gave nearly \$1.3 million to charities and organizations, more than \$1 million of which was in Benton and Franklin counties. While complete statistics are not kept on volunteer time, DOE and DOE contractor employees donated thousands of hours to the community. For example, PHMC volunteer activities included the following:

- Coordinating the community-wide Thanks-4-Giving Book Harvest—more than 60,000 books (compared to 6,000 last year) were collected for the Tri-Cities Reading Foundation and the Washington State Reading Corps/AmeriCorps, and then distributed to local hospitals, school districts, and day-care providers.
- Contributing well over 400 toys to the "Fill-a-Bus" Toy Drive—this more than doubled last year's total collected.
- Collecting over 35,000 pounds of food, toys, and warm clothing for the Hanford Community Food Drive—donations were delivered to 19 food banks throughout the Tri-Cities and the Yakima Valley.

Battelle total corporate contributions in the Pacific Northwest were \$725,000. Of that total, \$13,500 was disbursed through the Seattle/ Sequim offices. Thus, \$711,500 went to the greater Tri-Cities, educational projects in the Yakima Valley, and state-wide organizations.

Several hundred DOE and contractor staff members devote their time to bring science and technology to the local school systems through programs such as the Science Bowl, Sharing Science with Schools, Engineers' Week, and career days. More than 200 staff are also formally employed as adjunct faculty at Washington State University Tri-Cities and at Columbia Basin College.

The DOE/RL and its contractors also donate millions of dollars of excess but serviceable equipment such as personal computers to schools and other community organizations each year and make available some of their auditorium facilities for meetings of community organizations.

FY 1998 asset transfers included \$7.1 million in assets transferred to federal and state agencies, \$1.9 million in computers donated to schools in Washington, Oregon, and Montana, and \$51.6 million in equipment sold through public sales (mostly to small local businesses). The largest single transfer, to the Port of Benton, included 768 acres of the former 1100 Area, 26 facilities, and 16 miles of rail.

Hanford and the Tri-Cities Economic Prospects in FY 1999

The Hanford Site is still very much in transition, stemming from changes in management approach and downsizing in its workforce. Fiscal year 1999 promises a slight decrease in budget with associated impact. Overall, the expected local FY 1999 DOE budget of approximately \$1.566 billion (which includes \$100 million set aside for privatization of the Hanford Site's high-level nuclear waste operations that will not be used to fund current projects) should sustain a contractor workforce of almost 9,900 and local procurements and subcontracts of about \$244 million, if current employment and procurement patterns hold. This would mean an increase of about 200 contractor workers over September 1998 (about even with the FY 1998 average), an increase of \$15-20 million in payroll, and no increase in local procurements and subcontracts. For the community as a whole, other things equal, the impact would be to increase FY 1999 employment in the whole community (including Hanford) by over 300 jobs and wage income by \$29 million over the FY 1998 average.

Net contributions from other sectors are expected to add to these gains. The other large, traditional employers of the Tri-Cities and some new enterprises continue to have a significant positive impact on growth in the two-county region, independent of the Hanford Site. This is expected to more than offset a poorer year in agriculture.

Table 5. The Tri-Cities Economy in FY 1999 (Projected)

| | |
|---|---------------------------|
| DOE/RL | |
| Budget | \$1,566 million |
| Contractor employment | 9,850 |
| Local procurements | \$114 million |
| Local subcontracts | \$132 million |
| Direct plus indirect impacts on the economy | |
| Total community impact (DOE/RL, contractors, and general economy) | +315 total jobs |
| | +\$29 million wage income |
| Other Sectors' Impacts on the Economy | |
| Agriculture | -450 total jobs |
| | -\$36 million wage income |
| Manufacturing (traditional major employers) | No change |
| Regional services | -125 total jobs |
| | -\$3 million wage income |
| Hanford privatization | +590 total jobs |
| | +\$26 million wage income |
| New science and user facilities | +47 total jobs |
| | +\$2 million wage income |
| New enterprises and expansions | +1,250 jobs |
| | +\$44 million wage income |
| Total Net Impact, All Sectors | |
| Employment | +1,650 total jobs |
| Payroll | +\$62 million wage income |

Agriculture: The outlook for the region's major crops is flat to down compared with 1998, which itself was an unexpectedly disappointing year. The disappointment was due largely to problems in the region's traditional Asian markets. A decrease of 8% in Benton and Franklin county farm proprietor and labor income to about \$266 million appears possible. Soft white wheat prices are expected to be down from last year's average value of around \$3.50 per bushel to the \$2.70 to \$2.90 range as a result of relatively high stocks and reduced domestic use, coupled with continued difficulties in Asian markets and strengthening of the dollar against Asian currencies. Corn prices are projected to decline from about \$2.50 to a range of \$1.80 to \$2.20 per bushel. Possible further currency devaluation could occur in Asia if China is unable to defend its currency, putting more downward pressure on prices. Potato prices are expected to be about 5% poorer, in the range of \$4.50 per hundredweight. The smaller 1997-98 crop originally was expected to boost prices early in the year, but Canadian competition pushed prices downward all year. A smaller European crop should help prices. Milk prices in 1998 averaged about \$14 per hundredweight. The milk price in 1999 is not expected to be quite so high—probably between \$12.70 and \$13.25 per hundredweight. Feed grain and alfalfa prices have fallen sharply (the latter by up to 40%), reducing producers' costs.

Prices of processed vegetables are expected to be mixed. Tree fruit returns are expected to remain down from 1997, perhaps similar to the poor returns in 1998. A major source of uncertainty in apple markets last year was access to the Mexican market. This is expected to be less of a problem in 1999, but Asia remains a major problem. Concord grape prices in 1998 were about \$260 per ton, up \$10 from 1997, and are expected to remain at that level for 1999. Overall average wine grape prices in 1998 were down from \$972 in 1997 to about \$900 in 1998 due to an 8,000 ton (11%) increase in production. The average price for 1999 is expected to be down another \$50-\$100 per ton, depending on variety.

Beef production increased in 1998 from its 1997 levels, and exports remained weak, along with a continuing decline in domestic demand. Prices are expected to remain at current levels, about \$60 per hundredweight, until mid-1999. Grass seed production and prices held for 1998, but are expected to weaken in 1999, with demands for increased quality adding to costs. Taken together, a weak year in agriculture would subtract about 450 total jobs and \$36 million in total wage income from the economy.

Traditional Major Employers: Many of the Tri-Cities' traditional major employers expect to experience constant employment in the near term. This includes the Washington Public Power Supply System, which expects to produce about the same level of power for the next five years with about 1,100 employees (previous forecast had been for cuts of up to 200 employees); Siemens, with constant employment at about 750 employees; Lamb-Weston, with a constant level of 1,700 employees in Benton and Franklin counties; Sandvik, constant at about 270 employees; and Iowa Beef Processors and Boise Cascade in western Walla Walla County, constant at about 1,500 employees and 700 employees, respectively. Depending on agricultural product prices, regional manufacturing exports should stay approximately constant at \$1 billion. Burlington Northern Railroad, which currently employs about 500 workers in the Pasco rail yard, has leveled off on a recent aggressive hiring trend. Earnings among the area's traditional major employers are expected to be roughly constant.

New Employers: Major non-Hanford manufacturing and service employers are also being added to the mix, including new plants for Twin City Foods and International Hearth Melting, each with over 60 employees. Livingston Rebuild Center moved into the former Hanford 1100 area in March. So far, the employee-owned private company has created 15 jobs. Precision Castparts, which makes aircraft turbine engine parts, also has committed to expand to the Tri-Cities area with between 75 and 200 employees, but expansion is currently on hold because of a down market. The Tri-Cities' Columbia Center area also continues to grow as Tapteal Business Park comes on line.

Local Economic Development

Much of the new activity is a direct result of economic development programs and business recruitment and assistance programs conducted by the Hanford contractors, by the Tri-City Industrial Development Council (TRIDEC), and by a number of the local government entities in Benton and Franklin counties. While these groups performed much of this work with their own resources, economic transition funding and in-kind assistance from the DOE has also played a critical role. In FY 1998, 913 jobs and about \$30 million in wage income were directly added to the economic base from these sources; current commitments to expansion and expected recruitment successes are expected to add almost \$10 additional jobs and \$25 million in income in FY 1999. In FY 1998, the total impact was probably about 1,550 jobs and \$60 million, somewhat more than had been forecasted. In FY 1999, the total impact is expected to be 1,250 jobs and \$44 million.

Table 6. Selected Statistics for DOE/RL and Contractor Economic Transition Programs, FY 1998

| Program | Contribution |
|---|--|
| Economic development grants to TRIDEC ("3161" program and closely associated programs) | \$3.1 million new money in FY 1998 (see TRIDEC in Table 8 for results) |
| Facilities reuse (100, 300, 400, 1100, and 3000 Areas) | +40 to 50 jobs |
| Privatization BNFL | + 300 new hires. Jobs count in FY 1999 |
| Hanford contractor Economic Development Programs: 15 new non-Hanford companies founded or expanded in FY 1998 | Combined, 240 new jobs (94 shared with TRIDEC) |
| PNNL Economic Development Offices: 12 new non-Hanford companies; 16 other assisted companies | 27 jobs at new companies. 49 new jobs at other assisted companies |
| Science and Technology Park | Included in Tables 7, 8 |

DOE/RL and Contractor Economic Transition Programs

Six business strategies have been developed under DOE/RL's Hanford Economic Transition Program to support diversification of the local economy while helping to clean up Hanford.

1. Build strategic partnerships where economic collaboration and synergy are strong.
2. Leverage (match) existing site operations, technologies, and physical assets to "seed" private sector business opportunities and economic growth.
3. Invest in and build around community capabilities and strengths.
4. Provide a real return on investment in terms of cost reduction, technology infusion into cleanup, and new business enterprises.
5. Align the Hanford Economic Transition Program with the Secretary of Energy's strategic goals, the Hanford Site mission, and local community economic development goals.
6. Strategically focus on the recruitment, expansion, and start-up of small business enterprises at Hanford.

The DOE contractors also have their own economic development programs. The following are examples of economic transition and privatization efforts of DOE/RL and its contractors.

Economic Development Grants. A total of \$2.6 million was granted to TRIDEC in FY 1998 to fund community proposals intended to help diversify the local economy. Including carryover funds, \$5.3 million was spent. Proposals funded by TRIDEC as a result of the grant include supporting the Columbia Basin Minority Economic Development Association (CBMEDA), WSU Tri-Cities Business Links, the Tri-Cities Enterprise Association's Entrepreneurial Support Network, the Southeastern Washington Development Association (SWDA) Equity Capital Fund, programs to enhance the Columbia River shore and to promote tourism, the PNNL Entrepreneurial Leave of Absence Program and Technical Assistance Program, TRIDEC marketing and several other activities.

Facilities Reuse. DOE transferred the former Hanford 1100 area, including 768 acres, 26 buildings, and 16 miles of railroad track, to the Port of Benton in FY 1998. A rail locomotive repair and rebuild facility has been established by Livingston Rebuild Center. A gantry crane once used to unload barges at Hanford's N Reactor was transferred to the Gunderson Northwest railroad car repair shop (formerly, Pacific Railcar) in the Finley area east of Kennewick. Between 20 and 40 jobs are expected to be created by the transfer. Additional activities to vacate the 1100 Area of DOE subcontractor personnel have continued into FY 1999. Support activities continue for the exploration of commercial development activities in the 1100 Area and completion of minor details related to this transfer.

Privatization. Hanford privatization efforts date back to 1992, when the decontamination laundry services were outsourced to a commercial company. The major privatization event in FY 1998 was the selection of the American subsidiary of British Nuclear Fuels Limited (BNFL) to take on the vitrification of high-level nuclear waste in the tank farms in the Hanford Site's 200 Area.

Under the contract, work will proceed in two parts. During the initial 24-month period, BNFL will complete 30% of the facility design, prepare to start construction, and obtain financing. In addition, DOE/RL and BNFL will refine technical requirements, submit regulatory permitting applications, and finalize fixed-unit prices for treated waste. This phase of the contract is worth up to \$350 million, including a maximum fee of \$50 million. The fee is payable at the end of this design period. BNFL is expected to employ at least 300 workers in FY 1999, with an expected payroll of around \$15 million. In the second phase, DOE/RL will authorize BNFL to proceed with actual construction of the facility that will treat and immobilize the tank waste. BNFL will own, construct, and operate the treatment facility.

| Table 7. User Facilities and New Science, Technology, and Training Missions, FY 1998 | |
|---|---|
| Activity | Direct Economic Impact |
| William R. Wiley Environmental and Molecular Sciences Center (EMSL) | 350 outside researchers. Time onsite equivalent to 16 full time staff |
| Applied Process Engineering Laboratory (APEL) | 18-20 direct new jobs |
| Volpentest HAMMER Training and Education Center | Outside students equivalent to about 10 full-time employees. |
| All programs | 44-48 direct new jobs |
| Impact on the Economy | |
| | 75 jobs; \$3 million in wages |

User Facilities and New Science and Technology Missions

Several new user facilities are operating at Hanford and PNNL. Combined, these facilities brought payrolls and spending equivalent to about 45 full-time employees in FY 1998 (Table 7). Ground breaking for Laser Interferometer Gravitational Wave Observatory (LIGO) took place on the Hanford Site on July 6, 1994. This \$90 million project will detect and measure gravitational waves. The facility will house approximately 30 staff members and will host visiting scientists. LIGO is scheduled to be completed by 1999, so it is not counted in FY 1998. LIGO is a joint project of the California Institute of Technology and the Massachusetts Institute of Technology. The National Science Foundation manages funding for the project.

PNNL's \$230-million William R. Wiley Environmental and Molecular Sciences Laboratory became operational in 1997. Almost 700 users from academia, other national laboratories, and industry conducted research in DOE's Environmental Molecular Sciences Laboratory in FY 1998, and nearly half of those were onsite at least part of the year, the equivalent of about 16 full-time staff. EMSL serves as a national collaborative research and technology laboratory, providing educational and training opportunities for future scientists.

The Applied Process Engineering Laboratory (APEL) is a joint project with DOE, the City of Richland, Port of Benton, and Washington Public Power Supply System. The facility was refurbished and opened in FY 1998 to create a permitted, high-bay incubator that will spin off new technology-based enterprises focused on environmental remediation and pollution prevention. Companies occupying the APEL facilities during FY 1998 created 18-20 new jobs.

Table 8. Tri-Cities New Facilities plus Non-Hanford Business Recruiting and Development Statistics, FY 1998

| Program or Facility | Direct Impact |
|---|---|
| DOE contractor economic development programs | +315 jobs |
| TRIDEC (in addition to the jobs shared with DOE contractor programs) | +364 jobs |
| Pasco community development (in addition to TRIDEC and DOE contractor shared jobs) | +30 jobs |
| City of Richland (in addition to TRIDEC and DOE contractor shared jobs) | +40 jobs |
| Port of Benton (in addition to TRIDEC and DOE contractor shared jobs) | +56 jobs |
| Port of Kennewick (in addition to TRIDEC and DOE contractor shared jobs) | +30 jobs |
| Prosser economic development association (in addition to TRIDEC and DOE contractor shared jobs) | +33 jobs |
| Subtotal, non-Hanford | +868 jobs |
| New missions, and user facilities | +45 jobs |
| All programs, FY 1998 | +913 jobs |
| Impact on the economy | |
| | +1,550 Total jobs, +\$60 million total wage income |

Hanford's Volpentest HAMMER Training and Education Center \$29.9 million facility provides hands-on health and safety training to front line workers. More than 1,300 classes—and 23,000 cumulative student days—were logged during FY 1998. About 10% of the cumulative student days were attributable to non-Hanford personnel, or the spending equivalent of about 10 jobs.

Tri-Cities Non-Hanford Business Recruitment and Development Efforts, FY 1998

DOE and TRIDEC have executed a Memorandum of Understanding (MOU) that designates TRIDEC as the "one voice" for the local community on economic development issues. The MOU allows DOE and the local community to develop, review, and prioritize economic development activities related to Hanford. TRIDEC currently represents 42 economic development entities in the Benton-Franklin county area. Several of the local governments have their own recruitment and community development programs that have resulted in the creation of additional investments and jobs *beyond* those claimed by and credited to DOE, DOE contractors, and TRIDEC diversification efforts.

Because business recruitment and development is a joint responsibility of many parties, many entities can justly claim joint credit for development successes such as Livingston Rebuild Center or International Hearth Melting. Shared results are shown in Table 8. Combining all sources, after removing all double counting implicit in shared successes, 913 direct jobs paying about \$32 million were created. The bottom line is that the total impact from all sources of business recruitment and development efforts, was about 1,550 total jobs and \$60 million in wage income.

Outlook for FY 1999

Based on the FY 1999 budget, Hanford employment should be about the same as in FY 1998, but total payrolls should be up slightly. Hanford procurements and subcontracts should increase, LIGO will add 30 jobs, and BNFL's new activity will add at least 300 workers and a payroll of perhaps \$15 million. TRIDEC and the local governments are pursuing new leads for additional local direct jobs. Future expansions and new recruits in FY 1999 are expected to include almost 800 additional jobs, including about 200 at Tapteal Business Center, 100–150 in food processing, and over 200 in miscellaneous light manufacturing and services. By itself, the overall community-wide impact of all of this activity would be an increase of about 2,200 total jobs and about \$101 million in total wage income in FY 1999. However, because a tough year is expected in agriculture, these jobs must be offset against a prospective loss of 450 jobs due to losses in agriculture and 125 jobs due to losses in regional services.

Thus, overall, FY 1999 should see a *net* increase of about 1,650 jobs over FY 1998 and total local wage income should see a *net* increase of about \$62 million.

Conclusion and Looking Ahead to FY 2000 and Beyond

The diversification of the local economy remains on track, but the challenges remain. As Hanford downsizing continues, the core Hanford budget is expected to continue to decline, slowly eliminating a major component of the Tri-Cities area's economic base. The local DOE budget request for FY 2000 is \$1.656 billion, of which \$100 million is expected to be set aside for privatization of high-level nuclear waste operations. The difference, \$1.556 billion, would represent a slight increase from FY 1999 in dollars available for current spending.

The BNFL proposal for Phase I of the high-level waste privatization process was adopted with changes in August 1998. BNFL is in the process of adding the first 300 or so employees to its local activity, and is expected to be at 400 employees by mid-1999. During construction, expected in the middle of the coming decade, there are projected to be 2000 construction workers, followed by 600 operating personnel.

This will provide a major short-run boost to the local economy over the next few years. For the longer term and to avoid the disruption that could arise from shifts in government priorities, it is important for the Tri-Cities to develop a more permanent and more diverse economic base for the Tri-Cities area. Consequently, it is necessary for the community to continue and accelerate the diversification efforts that have shown success thus far.