

EXHIBIT E – ENVIRONMENTAL REPORT

SUBPART E.5 SOCIOECONOMIC IMPACTS

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E.5.1 INTRODUCTION

The purpose of this report is to discuss the socioeconomic conditions of the Enloe Hydroelectric Project (Project) Area in order to measure changes in socioeconomic conditions due to operation of the Project. The development of an economic base is necessary to compare the current socioeconomic conditions to the socioeconomic conditions with the operation of the Project and analyze resulting economic impacts. The baseline consists of the social conditions surrounding the Project Area as well as the economic conditions of Okanogan County. The remainder of this report discusses changes in the socioeconomic conditions of the Project Area and surrounding areas due to operation of the Enloe Project as discussed elsewhere in the application.

The current socioeconomic conditions in the Project Area and surrounding areas are described in Section E.5-2, followed by the anticipated short-term temporary impacts of construction upon elements of the socioeconomic base, and then long-term impacts on the study area with respect to the various elements of the socioeconomic base. This organization follows the regulatory requirements developed by FERC. Some of this information was synthesized from reports and information available for this area. Additional information was gathered from surveys and studies conducted in consultation with applicable state and federal agencies in accordance with Title 18, Part 4, Section 51 of the Code of Federal Regulations (18 CFR 4.51): Application for Major Modified Project-Existing Dam.

E.5.2 SOCIOECONOMIC IMPACT AREA

The Project Area is described in Exhibit E.1, General Description of Locale. The socioeconomic impact area (Impact Area) discussed here is defined as all of Okanogan County, Washington. This is the county in which the Project lies, and is shown in Figure E.5-1.

LABOR FORCE AND EMPLOYMENT

The civilian labor force consists of all persons 16 years and older who are either employed or unemployed and not a member of the armed services as defined by the United States Census Bureau. This section examines the labor force and employment information for Okanogan County.

In 2005, the county labor force of Okanogan County, Washington totaled 19,110 with 17,550 (91.8 percent) employed, according to the Washington State Employment

Security Department (Washington State Employment Security Department 2006). Table E.5-1 lists the top sector employers and number of employees in the county for the year 2003.

**Table E.5-1
Okanogan County Major Employers and Number of Employees (2003)**

Sector	Number of Employees
Local Government	4,474
Retail Trade	2,273
Forestry, Fishing Related Activities, Other	1,709
Health Care and Social Assistance	1,475
Accommodation and Food Service	1,324
Other Services Except Public Administration	1,118
Construction	1,006

Source: BEA REIS 2003 CD Table CA25N as provided by Sonoran Institute's Economic Profile System, May 1, 2006

The Local Government sector employs 4,474 people, which is 97 percent (approximately 2,200 employees) larger than the second leading sector, Retail Trade, with 2,273 employees.

UNEMPLOYMENT

According to the U.S. Census Bureau, "unemployed" refers to all civilians 16 years old and over who were not at work, were looking for work during the last four weeks, were available to start work, or were on temporary layoff. The following unemployment rates in Table E.5-2 are not seasonally-adjusted (to remove the effects of events that follow a regular pattern each year).

**Table E.5-2
Unemployment Rates**

Region	December 2005	December 2004
Washington State	5.3%	5.9%
Okanogan County	8.5%	9.9%
UNITED STATES	4.6%	5.1%

Source: Washington State Employment Security Department. 2005. Okanogan County Labor Area Summary, Labor Market and Economic Analysis. December 2005; U.S. Bureau of Labor Statistics, Bureau of Labor Statistics Data, accessed June 6, 2006.

The Washington State unemployment rates for December 2005 and 2004 are 5.3 percent and 5.9 percent, respectively. Although this aligns with the national reduction in unemployment levels, it is still higher than the national average in terms of percentage unemployed. This is, in part, due to the higher unemployment numbers in the high-tech industry in the Puget Sound area. While the unemployment rates for Okanogan County

in the study area for these two years are significantly higher than the rates for both Washington State and the United States, they also show an improving economy. The December 2005 Okanogan County unemployment rate was 8.5 percent, an improvement compared to 9.9 percent in December 2004. However, it is also over one and a half times the Washington State rate of 5.3 percent. The improving regional and national economy is partially responsible for the lower number; however, new growth within the county also influences this lower rate. The growth in employment is still behind the state and national employment growth.

POPULATION

Table E.5-3 displays the 2005 population estimates, the total land area in square miles, and the population density (persons per square mile) in Washington State compared to Okanogan County. While Okanogan County land base is nearly 8 percent of the state's total land area, it comprises less than one percent of the 2005 Washington State population. As can be seen, Washington State as a whole has a much larger land area density than Okanogan County, with 94.5 persons per square land mile, compared to Okanogan County's very sparse 7.6 persons per square mile. The population in the direct vicinity of the Project Area is primarily concentrated in and around the City of Oroville, 3.5 miles southeast of the Project.

Table E.5-3
Population Density for Washington and Okanogan County

Region	2005 Population Estimates	Total Land Area in Square Miles	Population Density in Land Area
Washington State	6,287,759	66,544	94.5
Okanogan County	39,782	5,268	7.6

Source: U.S. Bureau of the Census, 2000. Population Estimates, Area, and Density.

Washington State's and Okanogan County's racial compositions are shown in Table E.5-4. It is apparent that Okanogan County differs in many respects from Washington State as a whole. Although both are predominately White, and the percent of White is about the same between county and state, the minority racial makeup varies considerably. There are far fewer Black/African American and Asian as a share of the population in Okanogan County than in Washington State as a whole. Conversely, Okanogan County has a significantly higher share of Native American (11 percent) and Hispanic population (14 percent) compared to Washington State as a whole (1.7 percent and 8.8 percent, respectively). Table E.5-4 also shows the total population growth of Okanogan County has been much slower than the state as a whole, with Washington State population increasing by 6.7 percent between 2000 and 2005, while Okanogan County exhibited population growth over the same period of less than one percent.

Table E.5-4: Population Change and Racial Composition for Washington and Okanogan County

	2005 Population	White (%)	Black or African American (%)	Asian (%)	Native American (%)	Hispanic (%)	Population Change since 2000 (%)
Washington	6,287,759	85%	3.5%	6.4%	1.7%	8.8%	6.7%
Okanogan County	39,782	86%	0.4%	0.6%	11%	14%	0.6%

Source: U.S. Census, Population Estimates and State and County QuickFacts.

Table E.5-5 shows the total population and racial composition of selected cities within Okanogan County for census year 2000, the last year the information is available. As with Okanogan County as a whole, each of the cities are comprised primarily of White and Native American races, with a considerable share of ethnically Hispanic population in several of the cities.

Table E.5-5: Population Change and Racial Composition for Washington, Okanogan County, and Selected Cities

	2000 Population	White (%)	Black or African American (%)	Asian (%)	Native American (%)	Hispanic (%)	Population Change since 1900 (%)
Washington	5,894,121	82%	3%	6%	2%	7%	21%
Okanogan County	39,564	75%	0.3%	0.4%	11%	14%	19%
Conconully	185	96%	0%	0%	3%	0%	21%
Okanogan (City)	2,484	81%	0.4%	0.4%	8%	10%	5%
Omak	4,721	70%	0.2%	1%	15%	13%	15%
Oroville	1,653	82%	0.1%	0.3%	4%	17%	10%
Riverside	348	91%	0.3%	0.3%	5%	3%	56%
Tonasket	994	88%	0.4%	1%	1%	10%	17%

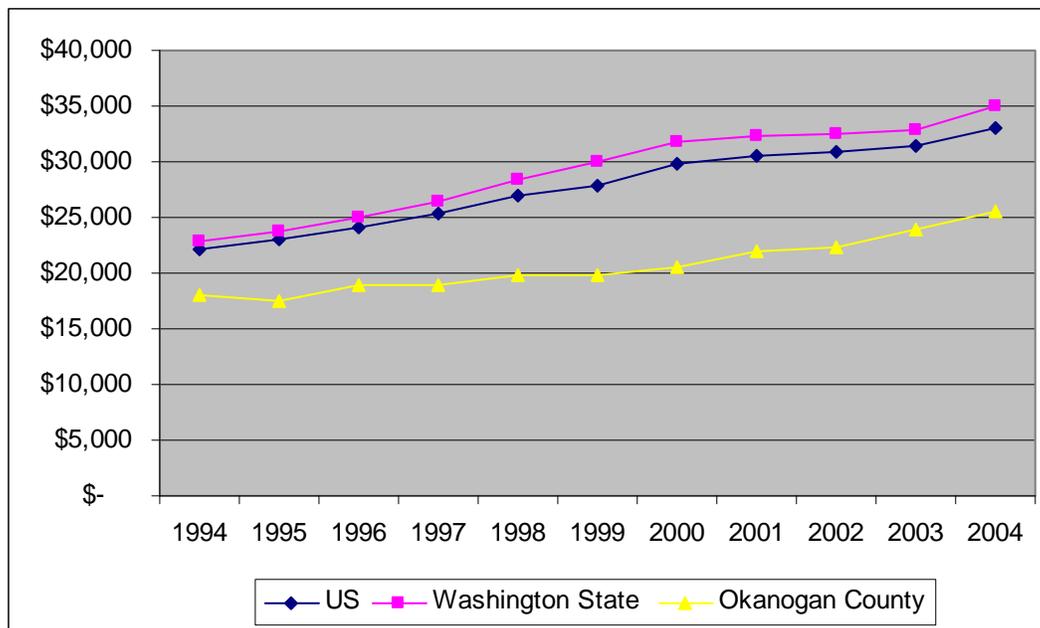
Source: U.S. Census 2000 Summary File 1 (SF 1) 100-Percent Data and U.S. Census 1990 Summary Tape File 1 (STF 1) 100-Percent Data

Approximately 25 percent of the Okanogan County population resides within the town limits of Conconully, Okanogan (City), Omak, Oroville, Riverside, and Tonasket. However, not all of these areas are considered urban, so a full 79 percent of all of Okanogan County residents are considered to live in rural areas.

PERSONAL INCOME TRENDS

Personal income is the income received from all sources. The Bureau of Economic Analysis derives per capita income by totaling the income of the residents in an area and dividing it by the resident population of the area using the Census Bureau's annual mid-year population estimate. The Okanogan County average is 73 percent of the state's average and 77 percent of the national average. From the period 1994 to 2004, Washington State experienced a higher growth in per capita income, 53 percent, as compared to the national growth 49 percent, and Okanogan County growth, 42 percent. The annual changes in per capita income since 1994 for Okanogan County, Washington State, and the United States are shown in Figure E.5-1. Washington State followed the same general pattern as and just above the level of the United States, widening the gap between the two series in the later years. The gap also widened between Okanogan County and both Washington State and the United States during the mid-years, but began closing again near the end of the period. In 2004 the per capita income for Okanogan County was \$25,459. By comparison, for the same year the per capita income for Washington State and the United States was \$35,041 and \$33,050, respectively (.S. Department of Commerce, Bureau of Economic Analysis 2003).

**Figure E.5-1
Per Capita Income for Okanogan County, Washington State,
and the United States**



Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, BEA Table CA1-3

E.5.3 MANPOWER REQUIREMENTS

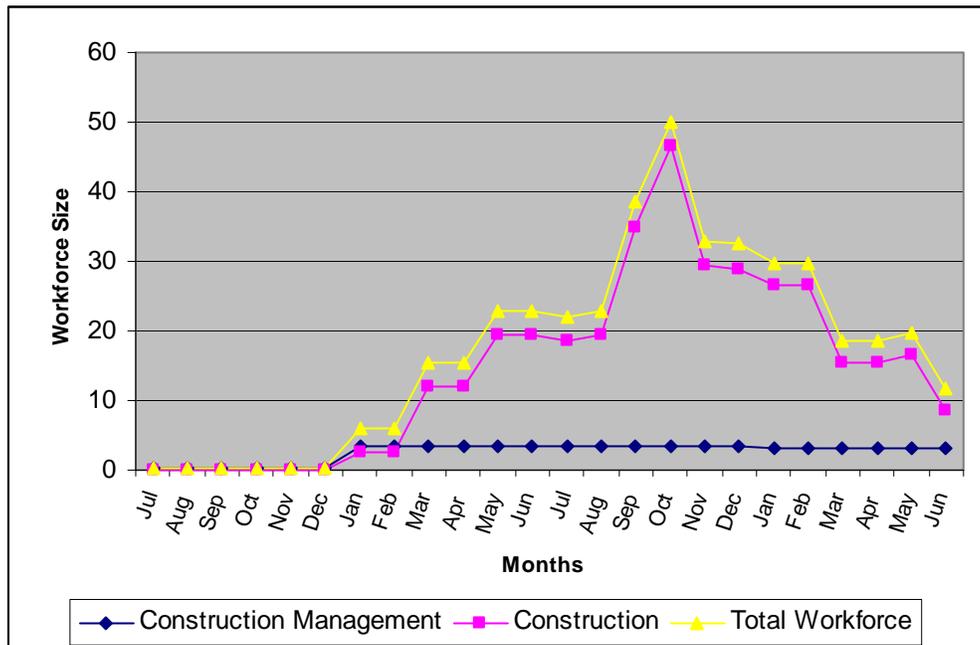
Preliminary estimates for Project construction employment have been developed with the following stipulations:

- Estimates were developed solely for this socioeconomic analysis;
- Actual schedule and crew sizes will be decided by the Contractor after the Project has been licensed, bid, and a contract awarded;
- Labor wage rates are approximate and depend on the contractor's work plan, degree of subcontracting, and reimbursement structure; and
- Project costs are also affected by risk, environmental constraints, and supply and demand of construction services at the time the Project is bid.

With these stipulations in mind, the preliminary estimates for construction employment indicate a small increase in engineering and construction management employment of 1 person or 0.4 Full-Time Equivalent (FTE) in year one, ramping up to 3.5 FTE at the start of year two. It will peak at 4 FTE during that year, and then stabilize throughout year three at 3 FTE. Construction employment requirements begin at the start of year two, with 2.5 FTE, increasing to 46.5 FTE near the end of year two. Year three indicates a requirement of 27 FTE for construction at the start of the year, ramping down to 9 FTE by the end of the three-year construction phase. Figure E.5-2 exhibits the on-site construction employment, both construction management and construction workers, by month during the construction phase.

Enloe will be an unmanned power station. The increased man-hours associated with the operation and maintenance of the project is 8,000 hours (or approximately 4 FTE) per year. However, due to the ability of current District staff to accommodate these needs, there will be no long term increase in on-site employment or payroll within the Impact Area due to the operation of the Project.

**Figure E.5-2
Construction Labor Force**

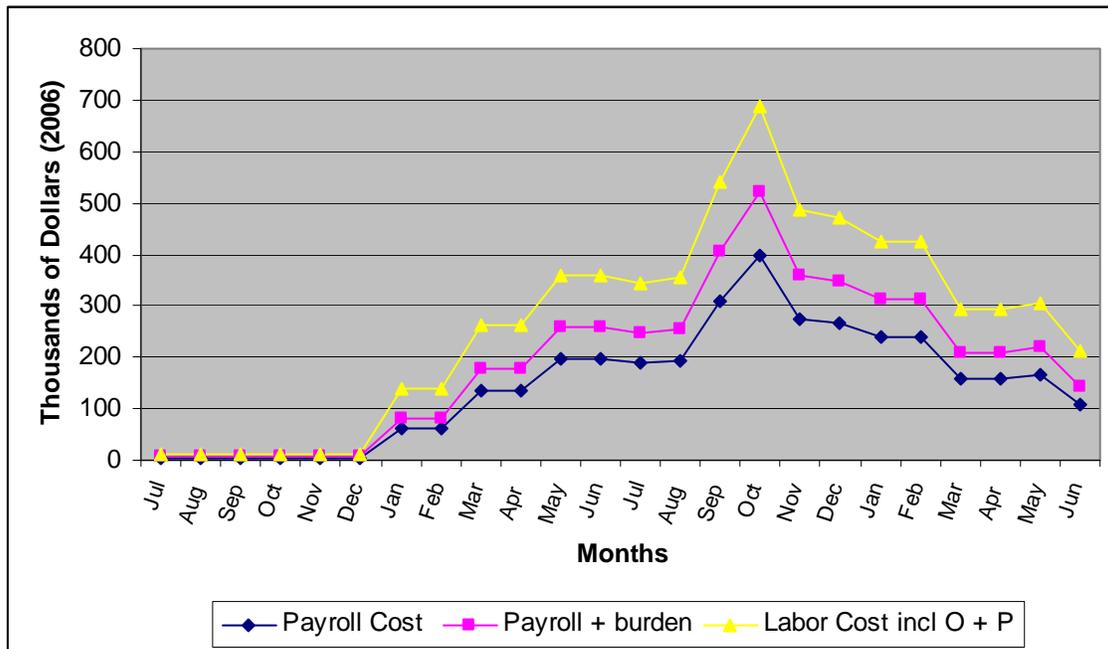


CONSTRUCTION PAYROLL

Construction payroll (not including burden) is initially estimated at \$26,000 for the first year, \$2.4 million, during the second year, and \$1.1 million during the third year, as associated with the on-site construction employment for each of those periods.

Figure E.5-3 shows the monthly construction payroll for the full construction period. This payroll will impact the local economy to the extent that it is spent within the county, such as for housing, food, and entertainment. However, since many of the construction personnel are assumed to relocate temporarily, it is expected that a significant portion of the payroll will be exported from the county to the long-term residence of the personnel.

**Figure E.5-3
Construction Labor Cost**



CONSTRUCTION PERSONNEL

Based on anecdotal preliminary information, it appears that the pool of skilled construction labor in the Impact Area is not large enough to fulfill all of the manpower requirements. However, the construction activities will attempt to utilize as much local manpower as possible, especially carpenters and other labor. It is estimated that approximately 20 to 25 percent of the personnel required for construction of the Project would include those currently residing within the Impact Area.

Further, while it is expected that there is potential for a very small number of workers to commute daily to the construction site from places situated outside the Impact Area, the majority of the remaining 75 to 80 percent of the temporary construction personnel would relocate on a temporary basis within the Impact Area.

E.5.4 IN-MIGRATION IMPACTS

While it is anticipated that there will be a temporary influx of construction workers during the Project construction phase, as discussed above, there is no indication that there would be any appreciable permanent migration to the Impact Area due to the Project. Therefore it is expected that there will be no permanent Project-related effects on the Impact Area's governmental facilities and services.

HOUSING

The closest town to the Project Area is the City of Oroville, which has very little available housing. Further, the towns of Conconully, Riverside, Okanogan, Omak, and Tonasket, and Okanogan County in general, have low rental vacancy rates, and limited numbers of rentals available. The 2000 census vacancy rates in Okanogan County are very low. While the total vacancy rate is 21 percent, which may not appear to be low, the majority of those vacancies (12 percent) are “for seasonal, recreational, or occasional use”, essentially vacation homes, while only 2 percent of all housing in Okanogan County is for rent and available. Number of vacancies varies in the different communities within the county. In the Oroville area, while the total number of vacancies is 103, only 39 of those are available to rent. In Conconully 48 of the 98 vacancies are “For seasonal, recreational, or occasional use”, leaving only three of the vacancies available to rent. Table E.5-6 illustrates the details of the housing and vacancies in the Impact Area (Okanogan County) and selected communities nearby the Enloe Dam Project Area.

**Table E.5-6
Housing and Housing Vacancies for Okanogan County and Selected
Communities within Project Impact Area**

	Okanogan County	Conconully	Riverside	Okanogan	Omak	Oroville	Tonasket
Total Housing	1,9085	192	153	997	2,016	794	482
Total Vacancies	4,058	98	10	88	155	103	62
For Rent	438	3	0	41	62	39	32
For Sale Only	340	3	1	12	35	27	6
Rented or Sold, Not Occupied	107	1	2	3	18	3	1
For Seasonal, Recreational, or Occasional Use	2,355	48	0	11	9	11	7
For Migrant Work	166	0	1	0	0	0	0
Other Vacant	653	43	6	21	31	23	16

Source: U.S. Census 2000 Summary File 1 (SF 1) 100-Percent Data

Although there are few vacancies in Okanogan County, the number of available rental units within commuting distance is several times the quantity required to serve construction workers on this Project and should be able to accommodate the small number of construction workers needing to relocate. Further, since the majority of the construction personnel will be relocating only temporarily, many of them may bring and stay in recreational vehicles, as is a common practice for short-duration construction projects in remote areas. There are a number of nearby RV parks and other mobile

home parks that should be able to accommodate the number of temporarily-locating construction personnel, for those not seeking rental housing.

Displacement

Construction of the proposed Project would not require the displacement of any residences or business establishments. Therefore, no procedures to acquire any properties would be established and no relocation assistance payments would be required.

E.5.5 FISCAL IMPACT ANALYSIS

The incremental local government expenditures related to the construction and operation of the Project are expected to be minimal. There should be no increase in school operating costs as little to no in-migration of families is expected to occur, as in-migration due to construction employment is expected to be temporary. Public utility costs are expected to decline with the Project in operation, as Project power will displace other, likely higher-cost, power the District may purchase in the future. Road maintenance and repair and public safety costs may increase during the construction phase, but that will only be temporary.

The incremental local government revenues related to the construction and operation of the Project are also expected to be minimal, resulting in a slightly positive impact to the socioeconomic Impact Area. As a public entity, the District is not subject to pay property taxes on the Project. However, the District will be responsible for the Privilege Tax on generation facilities, equal to 5.35 percent of the first four mills per kWh for power generated by the District for sale. This will lead to an annual tax spending of \$9,448. The only other expected increases in local taxes are from increased local spending during the construction phase, which are expected to be temporary. However, with construction costs totalling over \$25 million, some of which will be local purchases, the related taxes may be considerable for that short time.