

# *A Comparative Analysis of Economic and Fiscal Impacts of Developing the Route 9 Commercial & Industrial Site within the Proposed Grace Annexation Area of the City of Woodinville*

## **1. Introduction**

### **Background**

King County is proposing to build a new wastewater system, called Brightwater, to meet the region's long-term wastewater treatment needs. The Brightwater system would include a secondary wastewater treatment plant; the associated pipelines, pump stations, and other facilities that make up a conveyance system to transport wastewater to and from the plant; and an outfall to discharge effluent to Puget Sound. The treatment facility would provide additional capacity in 2010 to treat 36 million gallons per day (mgd) of wastewater. It would also produce biosolids for application on forestry and agricultural lands as well as highly treated water for non-drinking uses, such as landscape irrigation. Construction of the Brightwater system is scheduled to begin as early as 2004 and be completed with the plant online in 2010.

The preferred alternative site for the Brightwater secondary wastewater treatment plant (WWTP) is along State Route 9 in unincorporated Snohomish County. More specifically, the site is located just north of the intersection of State Route 9 and State Route 522 and the city limits of Woodinville. The 106-acre roughly rectangular site consists of parcels owned by various individuals, businesses, and organizations. Much of the site (69 acres) is within the City of Woodinville's urban growth area (UGA) and is currently zoned by Snohomish County for commercial and industrial uses. The northern 37 acre portion of the site is located outside the UGA and is largely undeveloped and partially forested, with the presence of wetlands. Brightwater's stormwater management system may be located in this northern area; but all buildings and plant process facilities would be located within the UGA area (*Brightwater Draft EIS*, p.1-5).

Currently located in Snohomish County's designated urban growth area, Grace neighborhood is contiguous with the City limits of Woodinville. Grace neighborhood is described in the City of Woodinville's Comprehensive Plan as the "industrial area north of the City limits in Snohomish County." Although the industrial/business park class is the dominant land use in Grace neighborhood, other land uses are present within the 480-acre area. The City of Woodinville is currently proposing to annex the Grace neighborhood.

The City of Woodinville Comprehensive Plan designates the Grace neighborhood as Industrial Corresponding zoning districts and zoning overlays (which would be applied to the area after annexation) allowing a variety of industrial and commercial uses.

### **Study Purpose and Scope**

The purpose of this study is to present results of an economic and fiscal impact analysis for two development scenarios within the Grace neighborhood. These two development scenarios are:

(1) the proposed Brightwater wastewater treatment facility (WWTP); and (2) a business park consisting of a retail center and office complex. Each of these development scenarios has potentially significant economic and fiscal implications for City of Woodinville, assuming the area is annexed by the city. In particular, the study poses this principal question: what is the stream of revenues and economic effects of constructing and operating the Brightwater WWTP in the Grace neighborhood compared with the planned business park scenario? Related, are there any associated stigma effects on property values with these two alternatives?

This study is not a complete fiscal impact analysis. Rather, it is limited to considering major tax revenues generated from direct project-related activities, namely revenues generated from direct construction outlays, sales receipts (subject to the sales and use tax) from operations, real estate sales, additions to the assessed property base, and energy use.<sup>1</sup> The revenue sources considered by the analysis consist of the property tax, sales and use tax, real estate excise tax, and utility tax (excise tax on electricity sales). Since the study is limited to an evaluation of revenues directly associated with each of the development scenarios, the other major component of a fiscal study—costs or expenditures—is not presented here. In addition, the study presents findings on the economic effects—employment and earnings—of both of these development scenarios. Construction and operation of the Brightwater wastewater treatment facility and the business park will also have “ripple” effects throughout the regional economy and within the City of Woodinville.

In the following narrative and tables, we present and compare the revenue and economic implications for each of the development scenarios in the Grace neighborhood. First, economic and revenue impact results for each development scenario are presented. Then, a discussion of the potential stigma effects of siting a wastewater treatment facility is presented. To the extent that this facility is labeled “noxious” or “nuisance,” what are the potential negative impacts on the property values of surrounding properties? Finally, we summarize and compare the economic and fiscal implications of these two development scenarios for the City of Woodinville.

## **Organization**

This study begins (Section 2) with a brief analysis of revenues by source generated by the City of Woodinville during recent years: 2000, 2001, and 2002 (budgeted). The analysis indicates changes in revenues by source over the period as well as the share of total revenues contributed by the property tax, sales and use tax, real estate excise tax, and utility tax. This serves as background for considering the impact of revenues generated from the development alternatives on the City budget. Section 3 presents a description of the Brightwater WWTP and Business Park alternatives and, in addition, discusses the City’s UGA that extends into Snohomish County and plans for annexation of that area. For the purposes of this comparative analysis, it is assumed that the City of Woodinville will annex the UGA by the end of 2004. Direct construction and operations activities are given in terms of costs and schedules for each of these two alternatives. Section 4 provides an evaluation of the economic and fiscal (revenue) impacts of developing the Brightwater WWTP. Both direct and indirect economic impacts are presented in terms of employment and earnings. Additions to the City’s tax base and resulting tax revenue

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<sup>1</sup> Revenues generated indirectly through worker household consumption and induced industrial activity are not considered. Similarly, expenditures made by the City are not considered in the fiscal analysis.

flows from direct construction and operations are given. Section 5 provides a similar evaluation of economic and fiscal impacts resulting from development of a Business Park. Section 6 presents an analysis of potential stigma effects of developing the project alternatives on neighboring property values. The final section (Section 7) presents a summary of the results and study conclusions.

## 2. City of Woodinville Revenues – Recent History

Like most municipalities in the state, the City of Woodinville derives a large share of its revenues from the property tax and sales and use tax. Table 1 indicates revenues by source generated by the City for the years 2000, 2001, and 2002. Combined revenues are presented for the City’s General Fund, Special Revenue Fund, Debt Service Fund, and Capital Funds. As shown in the table, local revenues dominate total revenues by source (excluding beginning fund balances and interest earnings), with \$10.3 million generated from all local sources out of total revenues of \$10.7 million in 2002. The pattern has not changed significantly since 2000, even though intergovernmental revenues declined by 16.5 percent during the period.

**Table 1. City of Woodinville Historical Revenues, 2000-2002 (Current Dollars)**

Revenue by Source:	FY 2000 Actual	FY 2001 Budget	FY 2002 Budget	Percent Change 2000-2002	Percent Change 2001-2002	Ave. Annual
						Percent Change 2000-2002
<b>2000 – 2002</b>						
<b>Local Source:</b>						
Property Tax	\$2,054,047	\$2,290,000	\$2,345,000	14.5%	2.4%	7.3%
Sales & Use Tax	4,526,796	5,007,000	4,800,000	6.0%	-4.1%	3.0%
Sales-Criminal Justice	215,942	216,418	219,240	1.5%	1.3%	0.7%
CableTV Franchise Fee	58,197	56,000	72,100	23.9%	28.8%	11.9%
Gambling Tax	94,507	98,000	94,000	-0.5%	-4.1%	-0.2%
Admissions Tax	205,299	212,000	206,000	0.3%	-2.8%	0.2%
Utility Tax	758,692	820,000	921,000	21.4%	12.3%	10.7%
Building Permits	183,095	183,340	147,000	-19.7%	-19.8%	-9.8%
Other Development	126,652	53,737	68,040	-46.3%	26.6%	-23.2%
Other Licenses & Permits	9,222	9,500	1,712	-81.4%	-82.0%	-40.7%
Fines & Forfeits	46,106	12,000	34,800	-24.5%	190.0%	-12.2%
Real Estate Excise Tax	612,440	552,000	580,000	-5.3%	5.1%	-2.6%
Zoning & Subdivision	45,779	27,810	41,200	-10.0%	48.1%	-5.0%
Design Review	0	12,325	68,200	NA	453.3%	100.7%
Land Use Application	0	50,000	96,000	NA	92.0%	100.0%
Plan Check Fee	260,119	221,450	206,000	-20.8%	-7.0%	-10.4%
ESA Bio Review	0	50,000	0	NA	-100.0%	-100.0%
Park Impact Fees	0	45,000	90,000	NA	100.0%	100.0%
Other Charges and Fees	199,805	223,549	239,058	19.6%	6.9%	9.8%
Private Contributions	64,601	40,000	45,000	-30.3%	12.5%	-15.1%
Miscellaneous	21,264	21,525	23,600	11.0%	9.6%	5.5%
<b>Subtotal, Local Sources</b>	<b>\$9,482,563</b>	<b>\$10,201,654</b>	<b>\$10,297,950</b>	<b>8.6%</b>	<b>0.9%</b>	<b>4.3%</b>
<b>Per Capita</b>	<b>\$1,031.39</b>	<b>\$1,109.60</b>	<b>\$1,117.52</b>	<b>8.4%</b>	<b>0.7%</b>	<b>4.2%</b>

**Table 1 (Continued)**

Revenue by Source: 2000 – 2002	FY 2000	FY 2001	FY 2002	Percent	Percent	Ave. Annual
	Actual	Budget	Budget	Change 2000-2002	Change 2001-2002	Percent Change 2000-2002
<b>Intergovernmental</b>						
<b>Source:</b>						
State Grants	\$30,119	\$5,150	\$5,150	-82.9%	0.0%	-41.5%
MV Fuel Tax	227,590	229,000	197,372	-13.3%	-13.8%	-6.6%
Vehicle License	94,121	92,000	101,970	8.3%	10.8%	4.2%
Local Govt. Assistance	83,471	54,531	56,000	-32.9%	2.7%	-16.4%
Interlocal Grants	3,059	12,360	8,240	169.4%	-33.3%	-84.7%
Other Intergovt. Revenue	2,644	2,060	515	-80.5%	-75.0%	-40.3%
<b>Subtotal, Intergovt. Source</b>	<b>\$441,004</b>	<b>\$395,101</b>	<b>\$369,247</b>	<b>-16.3%</b>	<b>-6.5%</b>	<b>-8.1%</b>
<b>Per Capita</b>	<b>\$47.97</b>	<b>\$42.97</b>	<b>\$40.07</b>	<b>-16.5%</b>	<b>-6.8%</b>	<b>-8.3%</b>
<b>Total Operating Revenue</b>	<b>\$9,923,567</b>	<b>\$10,596,755</b>	<b>\$10,667,197</b>	<b>7.5%</b>	<b>0.7%</b>	<b>3.7%</b>
<b>Per Capita</b>	<b>\$1,079.35</b>	<b>\$1,152.57</b>	<b>\$1,157.59</b>	<b>7.2%</b>	<b>0.4%</b>	<b>3.6%</b>
Beginning Fund Balance	\$15,788,714	416,478,465	\$13,442,670	-14.9%	-18.4%	-7.4%
Interest	\$915,070	\$1,156,899	\$472,900	-48.3%	-59.1%	-24.2%
<b>Total Available Revenue</b>	<b>\$26,627,351</b>	<b>\$28,232,119</b>	<b>\$24,582,767</b>	<b>-7.7%</b>	<b>-12.9%</b>	<b>-3.8%</b>
<b>Per Capita</b>	<b>\$2,896.17</b>	<b>\$3,070.71</b>	<b>\$2,667.69</b>	<b>-7.9%</b>	<b>-13.1%</b>	<b>-4.0%</b>
<b>POPULATION</b>	<b>9,194</b>	<b>9,194</b>	<b>9,215</b>			

Note: This table includes the General Fund and Special Revenue Funds (i.e., Street, Arterial Street, Contingency, Mitigation, Admission Tax, Park Impact Fee, and City Hall System Replacement Funds), Debt Service Fund, and Capital Funds.

Source: City of Woodinville, *Final Budget, 2002*.

Out of total revenues generated in 2002, 22 percent were provided from property tax collections (Figure 1). The property tax base (taxable assessed valuation) for the City of Woodinville in 2002 tax collections stood at \$2.3 million, substantially up from \$2.1 million in 2000. (The City's property tax levy rate for 2002 was 1.51427 per \$1,000 assessed valuation, slightly lower than the 2001 figure of \$1.59037 per \$1000 assessed valuation.) Property tax collections increased by 7.3 percent per annum between 2000 and 2002, as shown in the table.

The sales and use tax<sup>2</sup> contributed \$4.8 million or 44.9 percent of total revenues by source in 2002. As shown in Table 1, taxes from this source increased over the recent period at 3.0 percent per annum. The City's sales tax rate is 0.85 percent of taxable sales (1.0 percent less 0.15 percent distributed to King County). Sales tax distributions for criminal justice are made on a population-weighted basis from countywide collections.

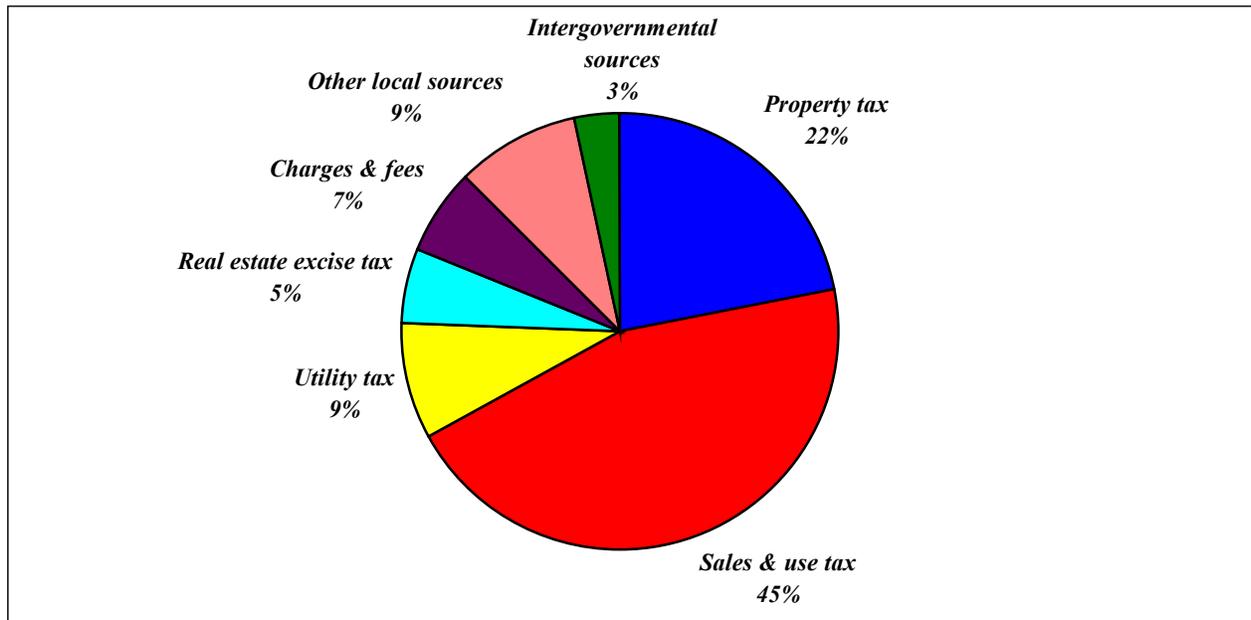
<sup>2</sup> Retail sales tax is paid by the purchaser based on the selling price of tangible goods and certain services; the use tax is paid by the user on which no sales tax was paid, for example on goods purchased from sellers located in other states.

Utility taxes, the next largest tax source are shown at \$921,000 in 2002, raising from \$759,000 in 2000, for an annual average rate of growth of 10.0 percent. Tax collections from this source represented 8.6 percent of total revenues by source. The City's tax rate on electricity sales is 2.0 percent of gross sales; the tax on telephone and solid waste handling charges is set at 4.0 percent.

Real estate excise tax collections are also a major source of revenues for the City. In 2002 they were budgeted at \$580,000, down modestly from \$612,000 in 2000, declining by an average annual rate of 2.6 percent. The 2002 share of total revenues by source contributed by utility taxes was 5.4 percent.

Total available revenue to the City of Woodinville, including funds from beginning fund balance and interest, amounted to \$24.6 million in 2002. This amount represents a decline of 7.7 percent below the City's 2000 level of \$26.6 million, or an average annual decrease of 3.8 percent over the two-year period.

**Figure 1. Revenues by Major Source for the City of Woodinville, FY2002 Budget**



Source: City of Woodinville. *Final Budget, 2002*

### ***3. The Proposed Brightwater WWTP and Business Park Alternatives***

#### **The Brightwater WWTP – Project Description**

The discussion presented in this section is intended to indicate only those key elements of the Brightwater wastewater treatment facility (WWTP) that relate to the economic and fiscal issues dealt with in this study (a full description of the proposed project is available in the *Brightwater Draft EIS*).

#### ***Construction Phase of Brightwater WWTP***

The proposed Brightwater WWTP is part of a wastewater treatment system that comprises raw sewerage effluent conveyance to the treatment plant site, which is located at the junction of State Route 9 and NE 195th Street, and treated sewerage conveyance from the plant to an outfall located to the west on Puget Sound.

The plant is to be built over a six- to eight-year period, with operations scheduled to begin in 2010. The system capacity is initially designed for treatment of 34 million gallons per day (mgd); however, the system is capable of expanding to eventually accommodate 54 mgd. The schedule for construction of the treatment plant calls for site preparation – 1 to 2 years; concrete emplacement – 3 to 4 years; equipment installation – 2 to 3 years, and testing/startup – 1 to 2 years. Some of these activities will be carried out concurrently. For purposes of this analysis, it is assumed that construction will commence in 2004 and be completed in 2009, with operations to begin in year 2010.

The proposed site of the WWTP will be primarily located in the proposed Grace Annexation Area of the City of Woodinville with buildable acreage estimated at 80 acres. It is anticipated that King County (Department of Natural Resources and Parks) would acquire the land over a two-year period of 2003-2004 by negotiated sales. For purposes of this analysis, land value is estimated at \$69.4 million (that is, 80 buildable acres priced at about \$870,000 per acre or \$20 per square foot of land area).

The total construction cost for the plant (assuming the Force Main/Gravity Tunnel, the preferred system) is estimated at \$474 million in 2002 dollars, based on King County Department of Natural Resources and Parks estimates (*Brightwater Treatment System, Cost Estimates for the Brightwater Systems, Information Handout, November 16, 2002*). These cost outlays have in turn been distributed over the 2004-2010 timeframe of construction (see Table 2).

Construction labor at the Brightwater WWTP site is estimated at a level of 350 workers during the peak construction period. Truck drivers would add an additional 60 – 70 workers (based on 249 daily heavy haul truck trips). Combined, the total peak construction workforce is estimated at 410 – 420 workers (*Brightwater Draft EIS*, p. 16-37). (For purposes of this study, the construction workforce is estimated for several worker categories, namely, construction, architecture/engineering and administration, and machinery and equipment installation. Adding these other worker categories increases the peak construction workforce to 505 workers, as shown in Table 2 below.)

**Table 2: Construction Cost Outlays for the Brightwater WWTP, 2004-2010**

<i>Year</i>	<i>Cost (\$ millions)</i>
2004	\$9.5
2005	\$117.3
2006	\$88.9
2007	\$112.6
2008	\$117.3
2009	\$28.4
2010	\$0.0
<b>Cumulative total</b>	<b>\$474.0</b>

### ***Operation Phase of the Brightwater WWTP***

Operation of the Brightwater WWTP is assumed to formally commence in 2010, although operational personnel are expected to be employed at the plant a year prior during the testing and startup period following construction. Operation costs (i.e., operations and maintenance or O & M) have been estimated by King County Department of Natural Resources and Parks at \$274 million over a 20-year period, based on a present value calculation using a discount rate of 3 percent (*Brightwater Treatment System, Cost Estimates for the Brightwater Systems, Information Handout, November 16, 2002*).

It is anticipated that the operations workforce will require 60 full-time-equivalent (FTE) workers. This number is derived from estimated employee trips/passenger cars of 120 daily (*Brightwater Draft DEIS*, p. 16 – 35). (For purposes of this study, it is assumed that half of these workers would be brought on line during the last year of construction-2009).

With the plant capacity at 34 mgd, this will require annual energy consumption of approximately 25,750 MWh, based on information provided in the *Brightwater Draft EIS*.<sup>3</sup> It is stated, also in the *Brightwater Draft EIS*, that 5,000 MWh of energy required from outside sources could be satisfied through energy recovery from bio-gas production on site.

### **Business Park Scenario– Project Description**

The area designated for development of the Brightwater WWTP preferred alternative is designated “industrial” on the City of Woodinville’s Comprehensive Plan Future Land Use Map and upon annexation by the City will be zoned to allow a business park.<sup>4</sup> The development concept for a business park follows general land use principals that involve zoning and building

<sup>3</sup> The *Brightwater Draft DEIS*, p. 8-10 and 8-11, indicates a gross annual energy consumption for the Route 9 plant site, assuming 36 mgd, as follows:

- Plant with secondary treatment – 18,000 to 26,000 MWh
- Reuse with chemical disinfection – 2,000 to 4,000 MWh
- Stormwater pumping – 600 to 900 MWh

<sup>4</sup> Again, it is assumed that this area—Grace Neighborhood—will be annexed by the City of Woodinville in 2004.

code regulations, available land area, as well as market performance criteria. For this study, development is predicated on availability of an 80-acre site (buildable area) within the Grace neighborhood<sup>5</sup> with assumptions regarding the type of business uses and mix of structures. It is important to note that the business park development scenario is hypothetical; no market analysis has been performed as part of this study to validate assumptions regarding projected development and absorption of retail and office space at the site.

It is assumed that two-thirds of the site would be developed as retail with the remaining one-third devoted to office buildings. The retail center would consist of a power shopping center<sup>6</sup>, two “big box” mass merchandising stores, and four fast food restaurants. The retail area would involve development of 25 percent of the designated land area for structures with the remaining area used for parking and buffers. A total of 580,000 square feet of retail space would be developed under this scenario. The office complex would be subject to FAR coverage of 1.0 and, as such, require construction of mid-rise office buildings with total area of 1,150,000 square feet. Table 3 presents the business and office development concept by type of use and square feet.

***Table 3. Business Park Development Scenario***

<b><i>Type of Use</i></b>	<b><i>Square feet</i></b>
<b>Power Shopping Center, total</b>	<b>325,000</b>
Anchor Tenant	130,000
Supermarket	60,000
Miscellaneous Retail	135,000
<b>Big Box- #1</b>	<b>130,000</b>
<b>Big Box-#2</b>	<b>115,000</b>
<b>Restaurants - (four units @ 2,500 sq ft.)</b>	<b>10,000</b>
<b><i>Total, retail</i></b>	<b><i>580,000</i></b>
<b>Office, Class A</b>	<b>1,150,000</b>
<b><i>Total, retail and office</i></b>	<b><i>1,730,000</i></b>

### ***Construction Phase of the Business Park***

The total construction cost for the planned Business Park is estimated at \$274 million in 2002 dollars, based on square footage construction costs derived from published sources (*RS Means, Building Construction Cost Data, 2003, 61<sup>st</sup> Edition*) and developer information. Total costs include 10 percent for site preparation and on- and off-site utilities, facilities construction, tenant improvements, and fixtures, furniture and equipment. The share of total construction costs for architecture/engineering and management is estimated at 7 percent (representing on-going costs

<sup>5</sup> In other words, the entire 80-acre (buildable area) site is within the annexation area.

<sup>6</sup> According to the International Council of Shopping Centers, there are several shopping center types. A power shopping center is one dominated by several large anchors, including discount department stores (Wal-Mart, Target, K-Mart), warehouse clubs (e.g., Costco), and “category killers,” i.e., stores that offer tremendous selection in a particular merchandise category at low prices (e.g., Home Depot, Lowes, Office Depot, Staples, Borders, Barnes & Noble). The center typically consists of several freestanding (unconnected) anchors and only a minimum of small specialty tenants.

for supervision and related services following design. The outlays (in millions of 2002 dollars) have been distributed over the timeframe of construction of the business park scenario (Table 4).

**Table 4 Construction Cost Outlays for Business Park Development, 2003-2010**

<i>Year</i>	<i>Cost (\$millions)</i>
2003	4.6
2004	\$28.2
2005	\$61.8
2006	\$57.2
2007	\$38.2
2008	\$38.2
2009	\$19.1
2010	\$0.0
<b>Cumulative total</b>	<b>\$247.3</b>

Construction would be carried out over a 7-year period, as indicated, with the first year, 2003, focused on site clearing and both on- and off-site utilities construction. The figures for construction do not include land costs, which are estimated at \$69.4 million, similar to the assumption used for the Brightwater WWTP analysis. Land purchases at the site are assumed to occur over a 3-year period, beginning in 2003.

The peak year construction workforce is estimated at 255 workers, or about half of the workforce estimated for the Brightwater WWTP.

### ***Operation Phase of the Business Park***

Business park operations are assumed to commence as construction projects are completed, beginning in 2005. Employment is estimated based on standard square footage/employment factors. For example, a mass merchandising anchor tenant at the proposed power shopping center would be expected to hire employees on the basis of 300 square feet per employee. Supermarket ratios are higher at 400 square feet per employee; whereas, miscellaneous retail, including department stores, would be expected to hire employees on the basis of 225 square feet per employee. Fast food restaurants have even lower square footage to employee ratios, estimated at 167 square feet per employee. Office employment would be expected to reflect a gross area to employee ratio of 330 square feet.

The operations workforce for the retail sales center is expected to employ 2,060 workers at full-development; employment at the office complex is estimated at 3,485 workers, based on the floor area-to-employee ratios. These direct employment estimates (totaling 5,545 workers) are on a full-time-equivalent basis. The steady-state maximum employment figure is achieved by 2010, the year when the business park development is completely built-out and fully-operational.

Sales generated from the retail center are estimated on the basis of square footage/sales ratios. For the anchor tenant of the power shopping center, sales per square foot are estimated at \$345, which is based on actual sales by major mass merchandising operations. Sales per square foot ratios for supermarket and miscellaneous retail are estimated at \$430 and \$200, respectively, with taxable sales of the former figured at 25 percent of total sales. Sales for fast food restaurants are much higher on a square footage basis, with estimated sales of \$750 per square foot. Total sales activity from the retail sales center is expected to rise from \$20.8 million in 2005 to \$178.8 million at steady-state (2010 and thereafter). Sales subject to the sales and use tax are estimated at \$159.3 million in the steady-state year.

Assessed property valuation, including land and structures, is estimated using cost as the basis for assessment. At full build-out, the business park is expected to have an assessed valuation of \$307.7 million.

The planned business park will require annual energy consumption of approximately 21,925 MWh, based on utilization rates of 15.0 KWh per square foot for the retail center and 11.5 KWh per square foot for the office complex.

## ***4. Economic and Fiscal (Revenue) Impacts Associated with Brightwater WWTP***

### **Economic Effects of the Brightwater WWTP**

The primary focus of the analysis of economic impacts related to development of Brightwater WWTP is on the employment and earnings<sup>7</sup> generated during construction and operations of the facility. Employment measured in terms of full-time-equivalents is given for both construction and operations, as shown in Table 5. Several worker categories including construction workers, machinery and equipment installation workers, and architectural, engineering, and administrative (A/E&A) workers are included in the direct worker totals. Peak year employment was estimated at 505 workers of whom about 66 percent are in construction occupations. Both construction and A/E&A workers were estimated based on their respective cost shares of total construction program outlays. For construction workers the labor share represented 26.1 percent of total contract construction outlays based on the *1997 Census of Heavy Construction Contractors*. The labor share represented by machine and equipment installers was estimated at 33.3 percent of expenditures for these materials. The labor share represented by A/E&A workers was estimated at 38.8 percent of expenditures represented by these activities, which for new hires were set at 7 percent of total construction program outlays. The labor share for this worker group was based on the earnings to output ratio for the engineering and architectural services sector in Washington State in 1996 (as reported in tabulations generated by the IMPLAN, 1996 Version economic impact model used in this study).

Direct operations workers were estimated based on information provided by the project proponent (*Brightwater Draft EIS*, p.16-35), as derived from estimated employee trips/passenger cars of 120 daily. Operations employment of 30 workers is projected for 2009, increasing to 60 workers in 2010. Direct employee compensation (wages and salaries) of construction workers and machinery and equipment installation workers were based on 2000 average annual covered wages for construction, adjusted for seasonality and inflated to 2002 dollars, based on Washington State Employment Security Department data. The average annual wage applied for construction workers (water, sewer, and utility lines workers) is \$46,980 unadjusted and \$51,676 adjusted (i.e., with benefits). Similarly, architecture, engineering and administration (A&E/A) worker annual earnings were based on average earnings for engineering management, at \$54,261, again based on information from the Washington State Employment Security Department.

Indirect earnings were estimated at \$33,773, based on the state average for all workers in the local government, state government, finance, insurance, and real estate (FIRE), retail trade, and services sectors, exclusive of prepackage software and computer programming, and a portion of the construction, wholesale trade, and transportation and public utilities sectors. Washington State Employment Security Department data for 2000 was used to estimate the indirect earnings average, which was then inflated to 2002 dollars.

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<sup>7</sup> Earnings refer to wages and salaries of workers and proprietors' income.

**Table 5 Brightwater WWTP Employment & Earnings (2002 \$Millions)**

<b>Category</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Construction Phase:</b>									
<u>Direct Workers:</u>	39	483	366	482	505	139	0	0	0
Construction	35	437	331	331	331	0	0	0	0
Mach.& Equip.	0	0	0	116	139	139	0	0	0
A & E and Admin.	4	46	35	35	35	0	0	0	0
<u>Indirect Workers</u>	36	446	338	444	466	128	0	0	0
<b>Total Employment</b>	<b>75</b>	<b>929</b>	<b>704</b>	<b>926</b>	<b>971</b>	<b>267</b>	<b>0</b>	<b>0</b>	<b>0</b>
<u>Direct Earnings</u>	\$2.03	\$25.09	\$19.01	\$25.27	\$26.52	\$7.52	\$0.00	\$0.00	\$0.00
<u>Indirect Earnings</u>	\$1.22	\$15.06	\$11.41	\$15.01	\$15.73	\$4.32	\$0.00	\$0.00	\$0.00
<b>Total Earnings</b>	<b>\$3.25</b>	<b>\$40.15</b>	<b>\$30.42</b>	<b>\$40.28</b>	<b>\$42.25</b>	<b>\$11.84</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Operations Phase:</b>									
<u>Direct Workers</u>	0	0	0	0	0	30	60	60	60
<u>Indirect Workers</u>	0	0	0	0	0	26	53	53	53
<b>Total Employment</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>56</b>	<b>113</b>	<b>113</b>	<b>113</b>
<u>Direct Earnings</u>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3.53	\$3.53	\$3.53	\$3.53
<u>Indirect Earnings</u>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.89	\$1.78	\$1.78	\$1.78
<b>Total Earnings</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$4.42</b>	<b>\$5.31</b>	<b>\$5.31</b>	<b>\$5.31</b>
<b>Combined Phases:</b>									
<u>Direct Workers</u>	39	483	366	482	505	169	60	60	60
<u>Indirect Workers</u>	36	446	338	444	466	154	53	53	53
<b>Total Employment</b>	<b>75</b>	<b>929</b>	<b>704</b>	<b>926</b>	<b>971</b>	<b>323</b>	<b>113</b>	<b>113</b>	<b>113</b>
<u>Direct Earnings</u>	\$2.03	\$25.09	\$19.01	\$25.27	\$26.52	\$11.05	\$3.53	\$3.53	\$3.53
<u>Indirect Earnings</u>	\$1.22	\$15.06	\$11.41	\$15.01	\$15.73	\$5.21	\$1.78	\$1.78	\$1.78
<b>Total Earnings</b>	<b>\$3.25</b>	<b>\$40.15</b>	<b>\$30.42</b>	<b>\$40.28</b>	<b>\$42.25</b>	<b>\$16.26</b>	<b>\$5.31</b>	<b>\$5.31</b>	<b>\$5.31</b>

Indirect employment and earnings were estimated based on Washington State input/output multipliers obtained from IMPLAN (1996-Version), an economic impact model jointly developed by the U.S. Forest Service and University of Minnesota. The multipliers from which changes in total employment (earnings) can be calculated from a unit change in direct employment (earnings). The indirect multipliers (consisting of total multipliers less the direct components - always 1.0), are given in Table 6.

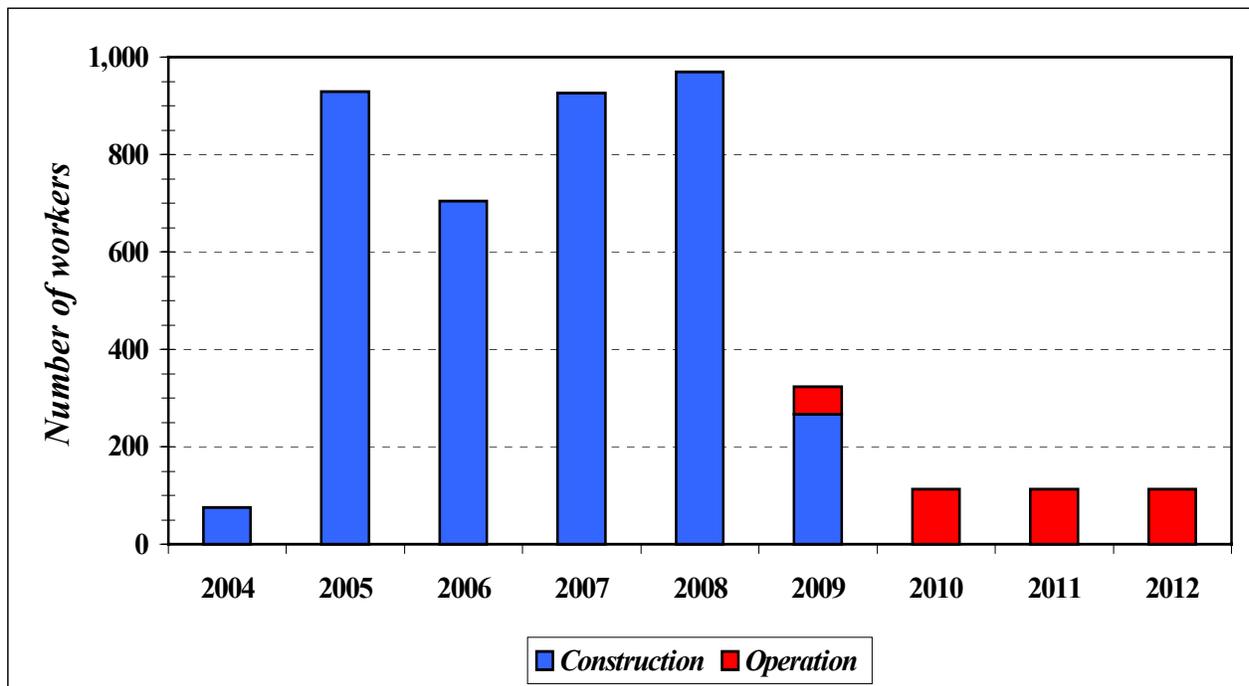
**Table 6. Indirect Multipliers Used for Brightwater Impact Analysis**

<i>Phase/Measure</i>	<i>Indirect Multiplier</i>
<b>Construction</b>	
Employment	0.923
Earnings	0.699
<b>Operations</b>	
Employment	0.878
Earnings	0.968

Source: IMPLAN

As shown in Table 5, total construction phase (direct and indirect) employment and earnings during the peak construction year, 2008, amount to 971 workers (= 505 direct + 466 indirect) and \$42.5 million (= \$26.5 million direct + \$15.7 million indirect), respectively. Operations phase direct employment and earnings are projected at 60 workers and \$5.3 million earnings in 2010, the steady-state year. With associated activity from these Brightwater WWTP construction and operations phases, total employment peaks in the year 2008 during construction at nearly 1,000 workers and then drops precipitously to a total of 113 workers (= 60 direct workers + 53 indirect workers) for the first year of full operation (see Figure 2).

**Figure 2. Employment Impacts of the Brightwater WWTP, 2004-2012**



## **Revenue Impacts of the Brightwater WWTP on the City of Woodinville**

With annexation of the proposed site for the Brightwater WWTP, the City of Woodinville would be expected to realize substantial revenue flows directly from the construction phase but only modest revenues once Brightwater WWTP becomes fully operational (see Table 7).

***Table 7. Brightwater WWTP - Revenue Base and City of Woodinville Tax Effects (Millions of 2002 Constant Dollars)***

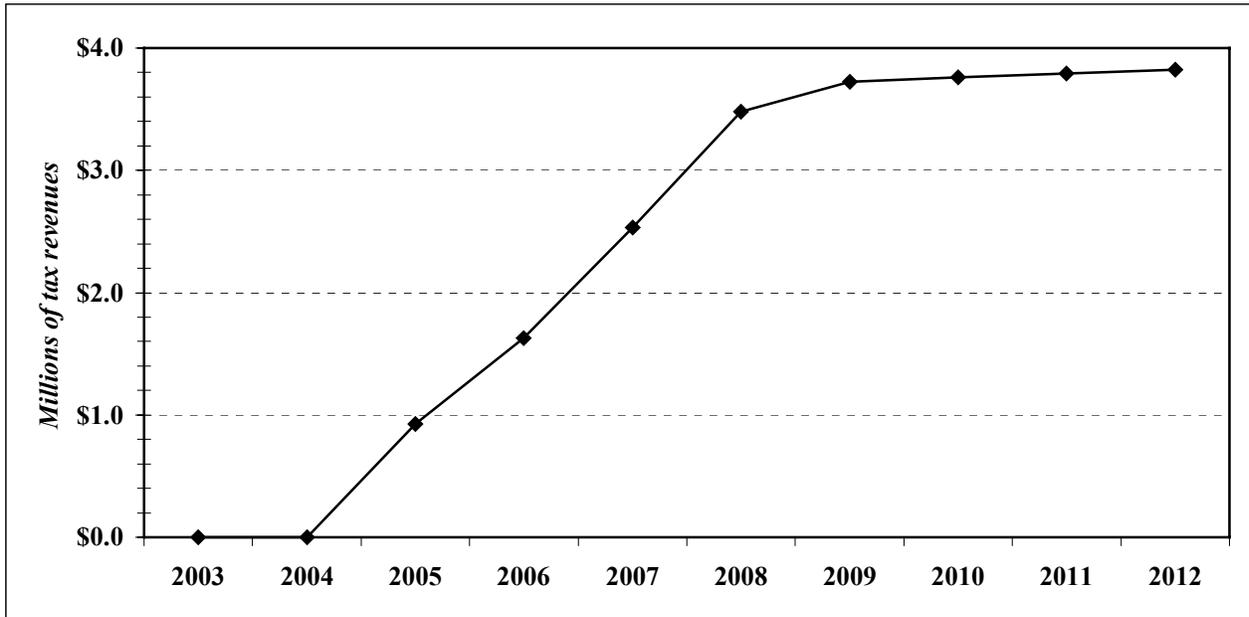
<i>Tax Base and Rates</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2003-2012</i>	<i>Total</i>
Land Conveyance	\$34.8	\$34.8										\$69.6
Total Construction Outlays												
Subject to Sales & Use Tax	\$0.0	\$8.8	\$109.1	\$82.7	\$106.4	\$111.1	\$28.4					\$446.5
Value-Electricity Utilization												
During Operations	n/a	n/a	n/a	n/a	n/a	n/a	\$0.33	\$1.65	\$1.65	\$1.65		\$5.28
<b><i>City of Woodinville:</i></b>												
Real Estate Excise Tax	n/a	n/a	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales & Use Tax	n/a	n/a	\$0.93	\$0.70	\$0.90	\$0.94	\$0.24	\$0.00	\$0.00	\$0.00	\$0.00	\$3.72
Utility Tax	n/a	n/a	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01	\$0.03	\$0.03	\$0.03	\$0.03	\$0.11
Total Tax Revenue	n/a	n/a	\$0.93	\$0.70	\$0.90	\$0.94	\$0.25	\$0.03	\$0.03	\$0.03	\$0.03	\$3.83

Notes: Real estate excise tax rate is 0.005%; sales & use tax rate is 0.85% and utility tax rate is 2.0%. Tax collections for the City of Woodinville do not begin until 2005, the first year after annexation.

Actual collections benefiting the City would occur upon annexing the Grace neighborhood area, which is anticipated by the end of 2004. As noted in the introduction to this study, there are four principal local tax base categories that would be affected directly by the project: the property tax, sales & use tax, real estate excise tax, and the utility tax.<sup>8</sup> Sales and use tax collections represent the major component of direct revenue contributions to the City following annexation of the area under consideration. The property tax is not applicable, as the project would be publicly-owned. The real estate excise tax, which is levied at 0.5 percent on property sales within the City is also not applicable, as sales transactions are assumed to be completed prior to 2005. Finally, the utility tax on electricity, levied at 2.0 percent of charges, is estimated to generate modest revenues during operations, some \$33 thousand per annum. Over the projection period, 2005 through 2012, total revenues attributable directly to the project are estimated at \$3.83 million in 2002 dollars (see Figure 3).

<sup>8</sup> As discussed in the introduction to this study, revenues attributable to the household-related expenditures of direct and indirect construction and operations workers as well as materials and supplies (consumables) used in facility operations are not considered. Similarly, user charges, such as for building permit fees, imposed by the City are not considered, as they reflect actual service costs. This is consistent with the study design, which does not include consideration of expenditure flows made by the City.

**Figure 3. Cumulative Tax Revenues Collected by City of Woodinville from the Brightwater WWTP, 2003-2012**



Note: Annexation of Grace Neighborhood occurs at the end of year 2004.

## ***5. Economic and Fiscal (Revenue) Impacts Associated with Business Park Development***

### **Economic Effects of Business Park Development**

The analysis of economic impacts related to development of a planned business park is on the employment and earnings generated during construction and operations of the facility. Employment measured in terms of full-time-equivalents is given for both construction and operations, as shown in Table 8. Construction workers and architectural, engineering, and administrative (A/E&A) workers are included in the direct worker totals. Peak year employment was estimated at 255 workers. Cost share factors used to estimate worker counts used in the analysis of Brightwater WWTP employment impacts were applied for this scenario.

Direct operations workers were estimated based on information indicated in the section describing the project characteristics for the business park development scenario (Section 3 above). Operations employment of 645 workers is projected for 2004, increasing to 5,545 workers in 2009.

Direct employee compensation (wages and salaries) of construction workers were based on 2000 average annual covered wages for construction, adjusted for seasonality and inflated to 2002 dollars, based on Washington State Employment Security Department data. Again, the approach used was similar to that applied for the Brightwater WWTP scenario, only machinery and equipment workers were not included in the present case. The average annual wage applied for construction workers is \$46,980 unadjusted and \$51,676 adjusted (i.e., to account for seasonal downtime). Similarly, architecture, engineering and administration (A&E/A) worker annual earnings were based on average earnings for engineering management, at \$54,261. Indirect earnings were estimated at \$33,773, also, based on the procedures used previously for estimating impacts of the Brightwater system alternative.

Direct operations earnings were based on average wages general merchandise (\$24,994), food stores (\$23,311), department stores (\$22,383) and eating and drinking establishments (\$14,276) for the retail center; and, average wages for business services and engineering management (\$47,350) for the office complex. These wage levels are based for electric, gas, and sanitary service workers, based on 2000 average annual covered wages for construction in Washington State, inflated to 2002 dollars.

Indirect employment and earnings were estimated based on Washington State input/output multipliers obtained from IMPLAN (1996-Version), an economic impact model jointly developed by the U.S. Forest Service and University of Minnesota. The multipliers from which changes in total employment (earnings) can be calculated from a unit change in direct employment (earnings). The indirect multipliers (consisting of total multipliers less the direct components - always 1.0) are given for each industry category (see Table 9).

**Table 8. Business Park Employment and Earnings (Millions of 2002 dollars)**

<b>Category</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Construction Phase:</b>										
Direct Workers:	19	116	255	236	157	157	79	0	0	0
Construction	17	105	230	213	142	142	71	0	0	0
A & E and Admin	2	11	24	22	15	15	7	0	0	0
Indirect Workers	19	119	259	240	160	160	80	0	0	0
Total Employment	38	235	514	476	317	317	159	0	0	0
Direct Earnings	\$0.98	\$6.04	\$13.22	\$12.24	\$8.16	\$8.16	\$4.08	\$0.00	\$0.00	\$0.00
Indirect Earnings	\$0.65	\$4.00	\$8.76	\$8.11	\$5.40	\$5.40	\$2.70	\$0.00	\$0.00	\$0.00
Total Earnings	\$1.63	\$10.04	\$21.98	\$20.35	\$13.56	\$13.56	\$6.78	\$0.00	\$0.00	\$0.00
<b>Operations Phase:</b>										
Direct Workers	0	645	2,057	3,365	4,237	5,109	5,545	5,545	5,545	5,545
Indirect Workers	0	358	1,141	1,867	2,351	2,834	3,076	3,076	3,076	3,076
Total Employment	0	1,003	3,199	5,232	6,588	7,943	8,621	8,621	8,621	8,621
Direct Earnings	\$0.00	\$24.90	\$79.40	\$129.90	\$163.55	\$197.21	\$214.03	\$214.03	\$214.03	\$214.03
Indirect Earnings	\$0.00	\$16.09	\$51.30	\$83.91	\$127.39	\$138.26	\$138.26	\$138.26	\$138.26	\$138.26
Total Earnings	\$0.00	\$40.99	\$130.70	\$213.81	\$290.94	\$335.47	\$352.29	\$352.29	\$352.29	\$352.29
<b>Combined Phases:</b>										
Direct Workers	19	761	2,312	3,601	4,394	5,266	5,624	5,545	5,545	5,545
Indirect Workers	19	477	1,400	2,107	2,511	2,994	3,156	3,076	3,076	3,076
Total Employment	38	1,238	3,713	5,708	6,905	8,260	8,780	8,621	8,621	8,621
Direct Earnings	\$0.98	\$30.94	\$92.62	\$142.14	\$171.71	\$205.37	\$218.11	\$214.03	\$214.03	\$214.03
Indirect Earnings	\$0.65	\$20.09	\$60.06	\$92.02	\$132.79	\$143.66	\$140.96	\$138.26	\$138.26	\$138.26
Total Earnings	\$1.63	\$51.03	\$152.68	\$234.16	\$304.50	\$349.03	\$359.07	\$352.29	\$352.29	\$352.29

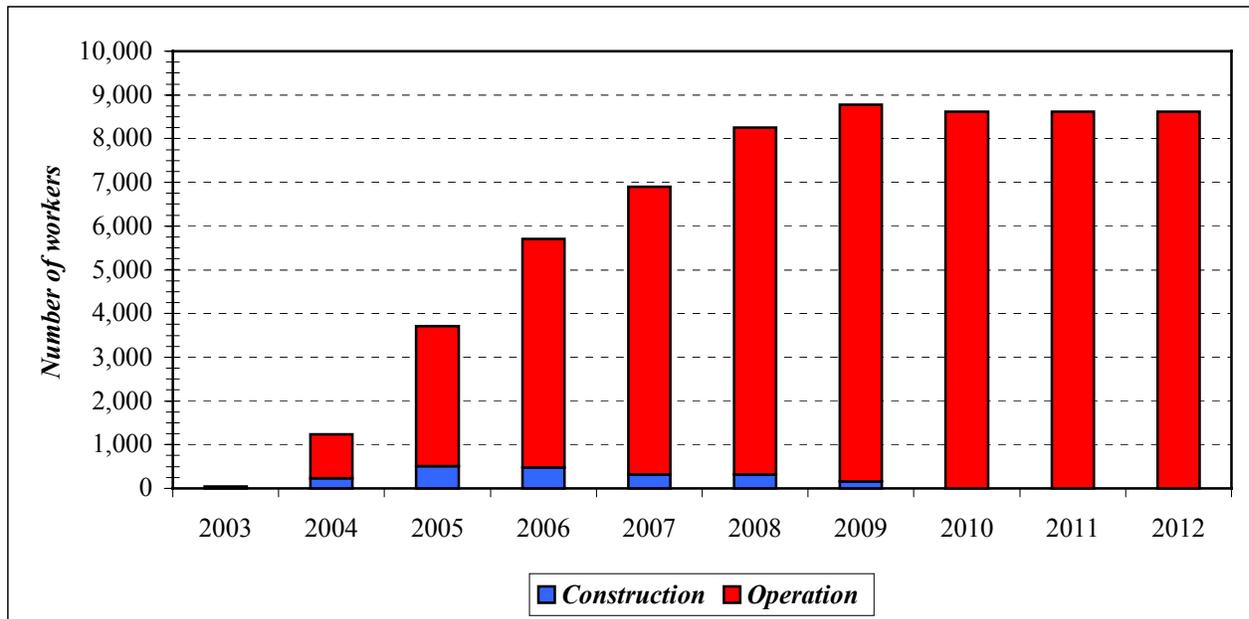
**Table 9. Indirect Multipliers Used for the Brightwater Impact Analysis**

<b>Phase/Measure</b>	<b>Indirect Multiplier</b>
<b>Construction</b>	
Employment	0.923
Earnings	0.699
<b>Operations</b>	
Employment	
General Merchandise	0.289
Grocery Store	0.269
Department Store	0.347
Eating & drinking places	0.291
Management & consulting	0.703
Earnings	
General Merchandise	0.669
Grocery Store	0.301
Department Store	0.409
Eating & drinking places	0.573
Management & consulting	0.669

Source: IMPLAN

As shown in Table 8, total construction phase employment and earnings during the peak construction year, 2005, amount to 514 workers (= 255 direct workers + 259 indirect workers) and \$22.0 million earnings (= \$13.22 million direct + \$8.76 million indirect), respectively. Operations phase total employment and earnings are projected at 8,621 workers (= 5,545 direct workers + 3,076 indirect workers) and \$352.3 million earnings (= \$214 million direct + \$138.3 million indirect) in 2010, the steady-state year (Figure 3).

**Figure 4. Employment Impacts of Business Park Development, 2004-2012**



### **Revenue Impacts of the Business Park on the City of Woodinville**

With annexation of the proposed business park site for the Brightwater WWTP, the City of Woodinville would be expected to realize substantial revenue flows directly from both construction and operation of the planned business park, as shown in Table 10.

As in the case of the Brightwater WWTP scenario, the actual tax collections benefiting the City would occur upon annexing the subject area, which is anticipated by the end of 2004. As noted in the introduction to this study, there are four principal local tax base categories that would be affected directly by the project: the property tax, sales & use tax, real estate excise tax, and the utility tax. Sales and use tax collections represent the major component of direct revenue contributions to the City following annexation of the area under consideration. A total of \$9.5 million in collections from this source are projected between 2005 and 2010. The property tax is also a major revenue source from the business park project, with projected revenues over the 2005 to 2010 period amounting to \$2.5 million. The real estate excise tax, which is levied at 0.5 percent on property sales within the City, is applicable on sales transactions in 2005 (one third of all land sales are assumed to be completed in that year), with revenues of \$115,000 estimated. Finally, the utility tax on electricity, levied at 2.0 percent of charges, is estimated to generate modest revenues during operations, some \$28,000 per annum. Over the projection period, 2005

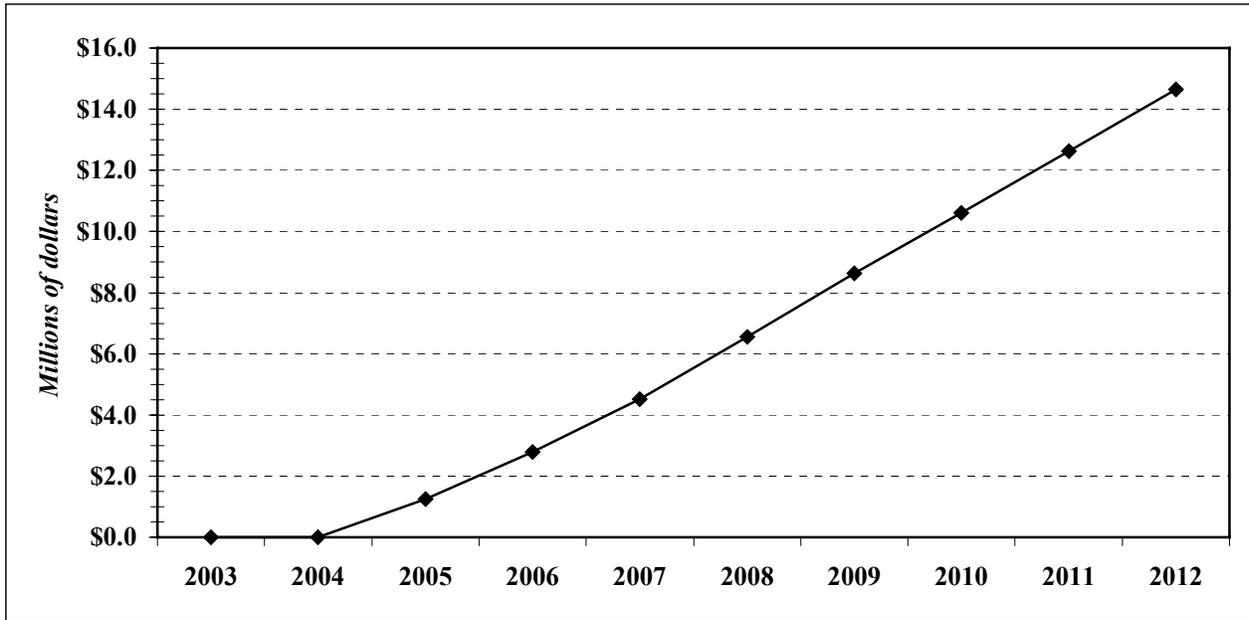
through 2012, total revenues attributable directly to the project are estimated at \$14.64 million (Figure 5).

**Table 10. Business Park Revenue Base and City of Woodinville Tax Effects  
(Millions of 2002 Constant Dollars)**

<i>Tax Base and Rates</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Total 2003-2012</i>
<i>Project-Related Tax Base:</i>											
Land Conveyance	\$23.1	\$23.1	\$23.2								\$69.4
Total Construction Outlays											
Subject to Sales & Use Tax	\$4.3	\$26.3	\$57.5	\$53.2	\$35.5	\$35.5	\$17.7	\$0.0	\$0.0	\$0.0	\$230.0
Value of Sales											
During operations	\$0.0	\$20.8	\$66.3	\$108.4	\$136.5	\$164.6	\$178.6	\$178.7	\$178.7	\$178.7	\$1,211.3
Assessed Property Value	\$23.2	\$48.7	\$95.6	\$155.1	\$212.3	\$250.5	\$288.6	\$307.7	\$307.7	\$307.7	\$1,997.1
Value of Electricity Utilization											
During Operations	\$0.0	\$0.2	\$0.6	\$0.9	\$1.1	\$1.3	\$1.4	\$1.4	\$1.4	\$1.4	\$9.6
<i>City of Woodinville</i>											
Real Estate Excise Tax	\$0.00	\$0.00	\$0.12	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.12
Property Tax	\$0.00	\$0.00	\$0.07	\$0.14	\$0.23	\$0.32	\$0.38	\$0.44	\$0.47	\$0.47	\$2.52
Sales & Use Tax	\$0.00	\$0.00	\$1.05	\$1.37	\$1.46	\$1.70	\$1.67	\$1.52	\$1.52	\$1.52	\$11.81
Utility Tax	\$0.00	\$0.00	\$0.01	\$0.02	\$0.02	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.19
Total Tax Revenue	\$0.00	\$0.00	\$1.25	\$1.54	\$1.72	\$2.05	\$2.08	\$1.98	\$2.01	\$2.01	\$14.64

Notes: Real estate excise tax rate is 0.5%; property tax rate is 1.51437 per \$1,000 of assessed value; sales and use tax rate is 0.85%; and utility tax rate is 2.0%. Tax collections for the City of Woodinville do not begin until 2005, the first year after annexation.

**Figure 5. Cumulative Tax Revenues Collected by City of Woodinville from Business Park Development, 2003-2012**



## ***6. Potential Stigma Effects***

A growing literature exists that documents reductions in property values around noxious facilities, including hazardous chemical and radioactive waste facilities, and solid waste landfills. Other studies have been performed on related negative externalities of groundwater contamination and high voltage transmission power lines. Previous research on wastewater treatment facilities and property values generally supports the notion that there is a slight negative relationship between proximity to these sites and residential sales values. This relationship becomes less apparent with increasing distance from the site, tapering off to no effect at some distance, depending upon the size of the facility. The nature of toxicity can also affect the reduction in property values; for instance, previous research has found that a larger negative effect is associated with hazardous (e.g., chemical and radioactive) waste than for non-hazardous materials. Odor from industrial facilities can also have a depressing effect on nearby residential property values.

If the Brightwater WWTP was sited in the proposed annexation area of Woodinville, what would be the potential impacts on nearby residential property values? Given the research results elsewhere, would there be a consequent loss in residential property values within the Grace neighborhood? Although more research is required to provide a more definitive answer, it is not expected that the siting of the wastewater treatment facility would have a negative impact on nearby residential property values, assuming the treatment plant incorporates state-of-the-art technology that can eliminate off-site odors associated with a wastewater treatment facility. Other unanswered questions, but clearly matters of concern for the City of Woodinville are the effects on future development within the annexation area and neighboring areas. Will there be an associated “stigma” effect for the City of Woodinville, affecting future growth and development? Surprisingly little attention has been directed toward this issue for wastewater treatment facilities. Given the almost ubiquitous presence of these facilities across the city and town landscape, negative or “stigma” effects are not expected assuming that odor control at the treatment plant is successful and odors are not detectable off-site, as claimed in the DEIS.

## ***7. Summary and Conclusion***

This study provides a comparative analysis of the economic and fiscal impacts of the (1) proposed Brightwater WWTP and (2) a planned business park consisting of a retail center and office complex, in the Grace neighborhood, north of the City of Woodinville. Each of these development scenarios was analyzed to determine the potential economic and fiscal implications for the City of Woodinville, assuming the area is annexed in the near future. In particular, the study provides an answer to this principal question: what is the stream of revenues and economic effects of constructing and operating the Brightwater WWTP in the Grace neighborhood compared with the planned business park scenario? In addition, is there any associated stigma effects on property values with these two alternatives?

Table 11 indicates the revenue and economic implications for each of the development scenarios in the Grace annexation area. Note that total employment represents the combined employment generated during both construction and operations phases. Moreover, it includes direct employment and as well as induced and indirect (or spinoff) employment associated with the respective development scenarios. As shown in the table, employment differences between the development scenarios are considerable. Peak construction employment for the Brightwater WWTP development is estimated at 971 workers in year 2008; for the business park the comparable figure is 514 workers in year 2005, for a difference of 415 workers in favor of the Brightwater WWTP. During operations, however, the total employment results are reversed. Total steady-state operations employment, which occurs in year 2010, is estimated at 113 workers under the Brightwater WWTP scenario and 8,621 workers under the business park scenario, for a difference of 8,508 workers in favor of the business park development. The results for worker earnings are similar in pattern. For the Brightwater WWTP development scenario, total construction phase earnings (including direct and indirect components) are estimated at \$42.3 million in the peak year, 2008; whereas, construction phase earnings for the planned business park development are estimated at \$22.0 million in the peak year, 2005. Operations phase earnings for the steady-state year (2010) are estimated at \$5.3 million for the Brightwater WWTP scenario and \$52.3 million for the business park scenario.

Revenue impacts on the City of Woodinville have also been shown to differ substantially between the two development scenarios. The City is projected to receive \$3.7 million over the projection period 2005 through 2010 (cumulative figure is not presented in the table); however, the on-going annual figure during the steady-state period (2011-2030) is only \$33,000 under the Brightwater WWTP scenario. The comparable figures for the planned business park are \$12.4 million over the 6-year projection horizon (2005-2010) and \$2.1 million annually for the steady-state period (2011-2030), a difference of \$8.8 million during the projection period and \$1.98 million per annum during steady-state, in favor of the business park scenario.

Clearly, the City of Woodinville stands to benefit from increased revenue flows under both scenarios, but at a dramatically greater magnitude assuming the business park is developed. The on-going revenue flow under the business park scenario is over 50 times as great as the Brightwater WWTP scenario.

The discussion on the potential stigma effects of siting a wastewater treatment facility presented in the study suggests that the effects would be at the most only modest and probably insignificant, assuming odor control methods are successful and that odor will not be detectable off-site, as claimed in the DEIS.

**Table 11. Summary Table of Revenue and Economic Effects of Business Park and Brightwater WWTP on City of Woodinville, 2003-2012**

<b>Development Scenario</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Business Park</b>										
Total Employment	38	1,238	3,713	5,708	6,905	8,260	8,780	8,621	8,621	8,621
Construction	38	235	514	476	317	317	159	0	0	0
Operations	0	1,003	3,199	5,232	6,588	7,943	8,621	8,621	8,621	8,621
Total Earnings	\$1.6	\$51.0	\$152.7	\$234.2	\$304.5	\$349.0	\$359.1	\$352.3	\$352.3	\$352.3
Construction	\$1.6	\$10.0	\$22.0	\$20.4	\$13.6	\$13.6	\$6.8	\$0.0	\$0.0	\$0.0
Operations	\$0.0	\$41.0	\$130.7	\$213.8	\$290.9	\$335.5	\$352.3	\$352.3	\$352.3	\$352.3
Total tax revenue	\$0.00	\$0.00	\$1.25	\$1.54	\$1.72	\$2.05	\$2.08	\$1.98	\$2.01	\$2.01
<b>Brightwater WWTP</b>										
Total Employment	0	75	929	704	926	970	323	113	113	113
Construction	0	75	929	704	926	970	267	0	0	0
Operations	0	0	0	0	0	0	56	113	113	113
Total Earnings	\$0.00	\$3.25	\$40.15	\$30.42	\$40.28	\$42.25	\$16.26	\$5.31	\$5.31	\$5.31
Construction	\$0.00	\$3.25	\$40.15	\$30.42	\$40.28	\$42.25	\$11.84	\$0.00	\$0.00	\$0.00
Operations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4.42	\$5.31	\$5.31	\$5.31
Total tax revenue	\$0.00	\$0.00	\$0.93	\$0.70	\$0.90	\$0.94	\$0.25	\$0.03	\$0.03	\$0.03
<b>Net Difference</b>										
<b>Business Park vs. Brightwater</b>										
Total Employment	38	1,163	2,784	5,004	5,979	7,290	8,457	8,508	8,508	8,508
Construction	38	160	-415	-228	-609	-653	-108	0	0	0
Operations	0	1,003	3,199	5,232	6,588	7,943	8,565	8,508	8,508	8,508
Total Earnings	\$1.63	\$47.78	\$112.53	\$203.74	\$264.22	\$306.78	\$342.81	\$346.98	\$346.98	\$346.98
Construction	\$1.63	\$6.79	-\$18.17	-\$10.07	-\$26.72	-\$28.69	-\$5.06	\$0.00	\$0.00	\$0.00
Operations	\$0.00	\$40.99	\$130.70	\$213.81	\$290.94	\$335.47	\$347.87	\$346.98	\$346.98	\$346.98
Total tax revenue	\$0.00	\$0.00	\$0.32	\$0.83	\$0.81	\$1.10	\$1.83	\$1.95	\$1.98	\$1.98

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