# Quantifying the state and local economic impacts of the proposed Hill Top House Hotel Project

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# Contents

Exec	cutive summary	1
1.	Introduction	3
2.	Approach and terms used in the report	3
3.	One-time impacts related to Project construction	5
4.	Annual economic impacts of hotel operations	7
4.1	Direct economic impacts	7
4.2	Total direct, indirect, and induced economic and tax impacts	8
5.	Estimated state and local tax impacts, by tax type	10
5.1	State and local taxes resulting from capital expenditures	11
5.2	State and local tax impacts resulting from annual operations	10
Appe	endix - Study methodology & limitations	13
Input	t-output multiplier analysis and the IMPLAN economic model	13
Inter	pretation of results and limitations of the analysis	13

# **Executive summary**

EY was commissioned by SWaN Hill Top, LLC ("SWaN" or the "Company") to estimate the potential economic benefits related to the construction and operation of the Hill Top House Hotel Project ("Hill Top House" or "Project"), a proposed high-end hotel in Harpers Ferry, West Virginia with approximately 129 rooms in the main hotel, lodge, and ancillary buildings. EY estimated the economic and tax effects related to: (1) temporary impacts during Project construction and build out and (2) the ongoing annual impacts from the proposed hotel's operations. Table ES-1 summarizes the estimated economic and tax impacts.

One-time impacts associated with Project construction are estimated to include:

- An estimated 478 "worker years," averaging 239 direct jobs on-site each year over the 2-year construction period, generating nearly \$29 million in direct personal income;
- More than \$105 million in total economic output (approximately business sales) in West Virginia, including indirect and induced economic effects; and
- Nearly \$7.2 million of state and local tax revenue over 2 years.
- Approximately two-thirds of the total economic impact will remain in Harpers Ferry, primarily construction contractors and laborers working on-site.
- Construction of the proposed Hotel will generate a one-time tax impact of nearly \$1.8 million for Harpers Ferry over 2 years (2-year total) related to on-site construction activity. This tax impact is generated primarily through business and occupation (B&O) tax on the construction contract and will not recur.

The ongoing operating impacts will include:

- 129 jobs at the hotel, supporting 140 total jobs in Harpers Ferry, including indirect and induced economic activity;
- Total impact on Harpers Ferry economic output of \$26.8 million annually; and
- Annual hotel operations will generate an estimated \$1 million in Harpers Ferry taxes on an annual basis, including taxes remitted on visitor purchases. Direct business taxes paid by the Project will account for 40% of the annual tax impact.
- The Project will also generate tax impacts for other local units of government including Jefferson County and Jefferson County School District. Total taxes expected to accrue to these other local units of government are \$2.3 million, of which \$2.2 million is direct property tax paid by the hotel.
- The reported tax impact includes taxes remitted on visitor spending. The analysis estimates that the hotel will remit \$581,200 annually in Harpers Ferry sales tax and hotel/motel occupancy taxes on behalf of visitors. This includes an estimated \$241,200 of Harpers Ferry sales taxes and \$340,000 in Harpers Ferry hotel occupancy tax (net revenue to Harpers Ferry, assuming 50% of revenues will go to the local tourism board). Additionally, \$340,000 will go to the local tourism board (Jefferson County Convention & Visitors Bureau).

Table ES-1. Direct and total economic impacts for Harpers Ferry and West Virginia related to the proposed hotel's construction and operations

Real 2019 dollars

	Direct impact	Total Harpers Ferry impact	Total statewide impact
One-time impact of capital investments			
Average annual employment	239	242	359
Worker Years (2 yr. total)	478	483	718
Labor income (2 yr. total)	\$28,628,600	\$28,802,700	\$39,324,500
GDP (2 yr. total)	\$41,863,600	\$42,202,500	\$60,450,800
Economic output (2 yr. total)	\$71,586,100	\$72,191,700	\$105,151,400
Ongoing impact of hotel operations			
Average annual employment	129	140	217
Labor income (annual)	\$5,230,200	\$5,566,700	\$9,019,300
GDP (annual)	\$13,990,200	\$14,642,300	\$20,638,800
Economic output (annual)	\$25,633,000	\$26,825,800	\$38,203,400

Note: Figures may not appear to sum due to rounding.

Source: EY analysis and data compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN.

Table ES-2. Total local tax impacts from ongoing hotel operations related to direct, indirect, and induced economic impacts and remitted on behalf of Hotel visitors, by tax type

Real 2019 dollars

Harpers Ferry taxes  Property taxes  Sales & use taxes  Sales & use taxes, paid by businesses & residents  Sales & use taxes, paid by visitors  Sales & use taxes, paid by visitors  Other local taxes, including B&O  Hotel/Motel Occupancy Tax, Harpers Ferry portion  Total Harpers Ferry taxes  Jefferson County + School District  Other local taxes, statewide  Hotel/Motel Occupancy Tax, local tourism board portion*  Total local taxes, statewide  \$340,000  Total local taxes, statewide  \$340,000  \$340,000  \$340,000		
Property taxes \$205,000  Sales & use taxes  Sales & use taxes, paid by businesses & residents \$900  Sales & use taxes, paid by visitors \$241,200  Other local taxes, including B&O \$216,200  Hotel/Motel Occupancy Tax, Harpers Ferry portion \$340,000  Total Harpers Ferry taxes \$1,003,300  Other local taxes  Jefferson County + School District \$2,255,400  Other local taxes, statewide \$76,000  Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000		
Sales & use taxes Sales & use taxes, paid by businesses & residents Sales & use taxes, paid by visitors Sales & use taxes, paid by visitors Sales & use taxes, including B&O Other local taxes, including B&O Hotel/Motel Occupancy Tax, Harpers Ferry portion Total Harpers Ferry taxes Sales & use taxes Ferry taxes Sales & use taxes, including B&O Sales & use taxes, including B&O Sales & use taxes, sale wide \$241,200 Sales & use taxes, statewide \$241,200 Sales & use taxes, paid by businesses & residents Sales & use taxes, sale, paid by businesses & residents Sales & use taxes, sale, paid by businesses & residents Sales & use taxes, sale, paid by businesses & residents Sales & use taxes, paid by businesses & residents Sales & use taxes, paid by businesses & residents Sales & use taxes, paid by visitors Sales & use taxes, paid by businesses & residents Sales & use taxes, paid by businesses & residents Sales & use taxes, paid by businesses & residents Sales & use taxes, paid by visitors Sales & u	Harpers Ferry taxes	
Sales & use taxes, paid by businesses & residents  Sales & use taxes, paid by visitors  Other local taxes, including B&O  Hotel/Motel Occupancy Tax, Harpers Ferry portion  Total Harpers Ferry taxes  Other local taxes  Jefferson County + School District  Other local taxes, statewide  Hotel/Motel Occupancy Tax, local tourism board portion*  \$900  \$241,200  \$216,200  \$340,000  \$340,000	Property taxes	\$205,000
Sales & use taxes, paid by visitors \$241,200 Other local taxes, including B&O \$216,200 Hotel/Motel Occupancy Tax, Harpers Ferry portion \$340,000 Total Harpers Ferry taxes \$1,003,300 Other local taxes  Jefferson County + School District \$2,255,400 Other local taxes, statewide \$76,000 Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000	Sales & use taxes	
Other local taxes, including B&O \$216,200  Hotel/Motel Occupancy Tax, Harpers Ferry portion \$340,000  Total Harpers Ferry taxes \$1,003,300  Other local taxes  Jefferson County + School District \$2,255,400  Other local taxes, statewide \$76,000  Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000	Sales & use taxes, paid by businesses & residents	\$900
Hotel/Motel Occupancy Tax, Harpers Ferry portion \$340,000 Total Harpers Ferry taxes \$1,003,300  Other local taxes  Jefferson County + School District \$2,255,400 Other local taxes, statewide \$76,000 Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000	Sales & use taxes, paid by visitors	\$241,200
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Other local taxes  Jefferson County + School District \$2,255,400  Other local taxes, statewide \$76,000  Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000	Hotel/Motel Occupancy Tax, Harpers Ferry portion	\$340,000
Jefferson County + School District \$2,255,400 Other local taxes, statewide \$76,000 Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000	Total Harpers Ferry taxes	\$1,003,300
Other local taxes, statewide \$76,000 Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000	Other local taxes	
Hotel/Motel Occupancy Tax, local tourism board portion* \$340,000	Jefferson County + School District	\$2,255,400
, ,	Other local taxes, statewide	\$76,000
Total local taxes, statewide \$3,674,700	Hotel/Motel Occupancy Tax, local tourism board portion*	\$340,000
	Total local taxes, statewide	\$3,674,700
	Hotel/Motel Occupancy Tax, local tourism board portion*	\$340,000

<sup>\*</sup>Jefferson County Convention & Visitors Bureau

Note: Figures may not appear to sum due to rounding.

# Quantifying the state and local economic impacts of the proposed Hill Top House Hotel Project

#### 1. Introduction

EY was commissioned by SWaN Hill Top, LLC ("SWaN" or the "Company") to estimate the potential economic benefits related to the Hill Top House Hotel Project ("Hill Top House" or "Project"), a proposed high-end hotel in Harpers Ferry, West Virginia. This report provides an assessment of the potential economic impacts attributable to the construction and annual operations of the Project, including the number of West Virginia jobs and employee earnings, GDP generated, state and local taxes, and other key economic contributions.

Harpers Ferry is located at the convergence of the Potomac and Shenandoah Rivers and is a popular site for tourists interested in the region's history and outdoor recreation. The headquarters of the Appalachian Trail Conservancy is located in Harpers Ferry, making Harpers Ferry a popular spot for hikers. The rivers and topography of the area have supported businesses catering to outdoor enthusiasts, such as zip line and canopy tours, white water rafting and tubing, backpacking, children's adventure camps, and boating. As a result, tourism to the area tends to be highly seasonal, peaking in the summer months. In addition to local attractions, Harpers Ferry is located near multiple vineyards, golf courses, and the Hollywood Casino at Charles Town Races, providing the opportunity for the proposed hotel to capture a share of the demand that already exists in the greater area.

The analysis presented in this report shows that the development and construction of the proposed Hill Top House Hotel will generate economic and tax benefits for Harpers Ferry and the State of West Virginia, should the Company undertake the project. In addition to the economic benefits of the hotel's construction, the expected annual operations at the hotel will support jobs and tax revenues throughout the state.

# 2. Approach and terms used in the report

This analysis considers impacts related to:

- (1) One-time (temporary) impact of capital investment The construction of the proposed hotel will temporarily support jobs in Harpers Ferry and throughout West Virginia, primarily in the construction sector.
- (2) Ongoing (annual) impact of hotel operations Operations at the proposed hotel will support ongoing jobs and incomes in Harpers Ferry and throughout West Virginia, primarily in hospitality-related businesses.

This study estimates three types of economic effects related to hotel construction and operations:

- Direct effects: The hotel's direct impact includes the hotel's projected revenues (direct economic output) and payments to employees (direct jobs and labor income). For the construction period, the direct impacts reflect the temporary on-site construction contractors and total construction expenditures.
- Indirect (supplier) economic effects: Indirect effects are the result of the hotel's purchases from local suppliers (e.g., food, cleaning supplies, stationary, utilities, contract security, etc.). As the hotel purchases goods and services from local businesses, these businesses in turn purchase additional inputs from their suppliers in order to meet new demand from the hotel. These supplier sales are captured in the indirect effect, reflecting employment and labor income impacts and the subsequent rounds of supplier purchases in the state and local economies.
- Induced (employee spending) economic effects: Induced effects are supported through
  household consumption spending by employees. Hotel employees and employees of the hotel's
  suppliers will use a portion of their incomes to purchase goods and services from businesses in
  Harpers Ferry, as well as other parts of West Virginia. These transactions support employment at
  businesses such as retailers, restaurants, and service companies.

Direct, indirect, and induced impacts are expressed in terms of five indicators:

- Economic output: Economic output is the broadest measure of economic activity and includes GDP and intermediate input purchases. For the proposed hotel, economic output is equivalent to total room and service revenues. Economic output is the sum of GDP and intermediate demand (purchases from third-party suppliers).
- Gross Domestic Product (GDP): GDP, or value added, is a component of economic output and includes labor income, payments to capital, and indirect taxes.
- Labor income: Labor income is a component of GDP and includes total employee compensation (value of wages and benefits) and proprietor income.
- Employment: Employment reflects the total number of full- and part-time jobs (headcount).
- State and local taxes: Estimated taxes include individual and corporate income taxes, sales and
  excise taxes, and local property taxes paid by businesses and households. Income, property, and
  sales taxes paid by hotel employees on their incomes and purchases are included as direct taxes.
  The analysis presents estimates for local taxes collected within Harpers Ferry (all taxing
  jurisdictions) and other local governments throughout the state.

# One-time impacts related to Project construction

Based on information compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN, the proposed hotel will require \$139 million in total investment including construction, design, furnishing, and other costs. Of this total spend, over half will be for the construction of the hotel and surrounding infrastructure (see Figure 1). This spending will temporarily increase demand for local construction services, generating nearly \$72 million of direct construction sector economic output and supporting on-site employment. The construction of the proposed hotel in Harpers Ferry will generate economic impacts over the two-year construction period. These impacts are described as "one-time" because they do not recur.

Soft costs, such as design and management, account for \$10 million, and hard costs including furniture, fixtures, and equipment (FF&E) will total \$12 million. These goods and services are assumed to be supplied from vendors outside of West Virginia and are not included in the economic impacts presented in this section.

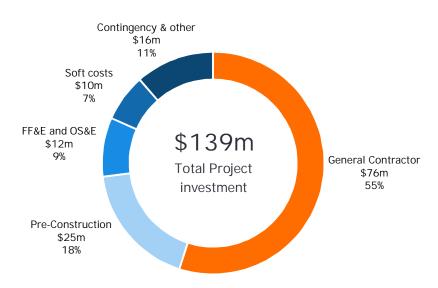


Figure 1. Composition of capital investments, by type Millions of dollars

Note: Amount includes escalation.

Source: Data compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN.

#### Estimated one-time economic impacts

- Direct construction expenditures of nearly \$72 million will support an average of 239 on-site construction contractors per year in Harpers Ferry during the hotel's construction – totaling 478 direct worker years (one-year jobs).
- Including direct (contractor), indirect (supplier), and induced (household spending) economic
  effects, Project construction will support an average of 242 construction and related jobs per
  year in Harpers Ferry during the 2-year construction period.

- The total job impact includes construction contractors and engineers, as well as employees at construction material suppliers. Workers supported by capital expenditure impacts in Harpers Ferry will earn an estimated \$28.6 million in total compensation (direct labor income).
- Projected capital investments in the Hill Top House Hotel will generate approximately \$72.2
  million of total economic output in Harpers Ferry. Of this total output, \$42.2 million will be
  attributed to GDP, including \$28.8 million in labor income earned by Harpers Ferry workers.
- While most of the impact will be in Harpers Ferry, additional activity will be supported throughout
  West Virginia as a result of local construction spending (\$105.2 million of total economic output
  in West Virginia) supporting an average of 359 jobs per year statewide (718 worker-years).
- Capital investments will generate \$7.2 million in total state and local tax revenues. Of this total, \$4.6 million will be direct taxes paid by the construction contractor, including more than \$2.0 million of state and local sales taxes on construction materials.<sup>1</sup>

Table 1. State and local impacts of planned capital investments Real 2019 dollars

	Direct impact	Indirect & Induced impact	Total impact
	Construction contractors	Payments made to construction suppliers; Businesses selling to contract employees	Total one-time
Harpers Ferry			
Avg. annual jobs	239	3	242
Worker years	478	5	483
Labor income	\$28,628,600	\$174,100	\$28,802,700
GDP	\$41,863,600	\$338,900	\$42,202,500
Economic output	\$71,586,100	\$605,600	\$72,191,700
WV, statewide			
Avg. annual jobs	239	120	359
Worker years	478	240	718
Labor income	\$28,628,600	\$10,695,900	\$39,324,500
GDP	\$41,863,600	\$18,587,200	\$60,450,800
Economic output	\$71,586,100	\$33,565,300	\$105,151,400

Note: Figures may not appear to sum due to rounding. Worker years are equivalent to the number of jobs lasting an average of one year each.

 $<sup>^{1}</sup>$  Assumes 40% of the \$72 million planned construction spend is subject to state sales tax rate of 6% and local sales tax rate of 1%.

## 4. Annual economic impacts of hotel operations

#### 4.1 Direct economic impacts

The hotel's direct impacts can be described in terms of economic value generated and distributed, as shown in Table 2. The hotel generates economic value through its sales, shown as direct economic output. The hotel distributes economic value in West Virginia through its payments to in-state suppliers, employees, and governments.<sup>2</sup>

The analysis assumes that the hotel will employ 129 workers once fully operational (assuming one employee per room). According to the most recent Census estimates, the combined population of Harpers Ferry and neighboring Bolivar was around 1,500 people – with approximately 300 people working in these two towns combined.<sup>3</sup> Including current employment in Harpers Ferry and neighboring Bolivar, the direct jobs at the proposed hotel would increase the number of local jobs by 40%.<sup>4</sup>

Hotel employees will earn an estimated \$40,500 in average total compensation, including the value of wages, tips, and benefits – totaling more than \$5.2 million in annual payroll expense (direct labor income).<sup>5</sup> This average compensation, which is representative of both full-time and part-time workers, reflects an average work week of approximately 34 hours.<sup>6</sup>

Table 2. Economic value generated and distributed, annual Real 2019 dollars

Real 2017 dollars			
	Direct hotel operations		
Economic value generated in Harpers Ferry			
Rooms	\$13,598,000		
Food and beverage	\$9,498,000		
Spa	\$1,511,000		
Other revenues	\$1,026,000		
Direct economic output	\$25,633,000		
Economic value distributed in WV			
Local supplier purchases (intermediate demand)			
Within Harpers Ferry	\$251,700		
Elsewhere in West Virginia	\$5,461,100		
Employees (direct labor income)	\$5,230,200		
Governments (taxes)			
Harpers Ferry	\$409,100		
Other state & local taxes	\$1,769,000		
Total value distributed in WV	\$13,121,100		

Note: Figures may not appear to sum due to rounding: Source: EY analysis and data compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN.

<sup>&</sup>lt;sup>2</sup> The share of operating inputs purchased from local vendors was estimated using industry averages for the accommodations sector in the IMPLAN models of Jefferson County and WV, reflecting historical purchasing relationships for existing businesses. <sup>3</sup> U.S. Census American Community Survey (ACS) 5-Year Population Estimate (2013-2017) and 2002-2014 LEHD Origin Destination Employment Statistics (LODES).

<sup>&</sup>lt;sup>4</sup> U.S. Census 2002-2014 LODES.

<sup>&</sup>lt;sup>5</sup> Annual average compensation based on the average for the accommodations sector in the IMPLAN model of Harpers Ferry.

<sup>&</sup>lt;sup>6</sup> According to BLS, the average employee in the leisure and hospitality sector worked 34.1 hours per week in 2018.

#### 4.2 Total direct, indirect, and induced economic and tax impacts

Contributions related to operations provide a snapshot of the potential ongoing annual economic impacts of the proposed hotel. The estimated impacts reflect the anticipated annual operations of the hotel, once fully-operational (year 3). Economic impacts include activity in the Town of Harpers Ferry and the State of West Virginia overall.

#### Estimated annual economic impacts

- Hotel operations will support an estimated 140 direct, indirect, and induced jobs in Harpers
  Ferry and 217 total jobs throughout the state. This includes jobs at the hotel's suppliers
  (indirect) and businesses that sell to hotel employees and hotel supplier employees (induced).
- For every 10 direct jobs at the hotel, an additional 7 jobs are supported elsewhere in the state through indirect and induced economic activity 17 jobs total (statewide employment multiplier of 1.7). This is higher than the average employment multiplier for the existing West Virginia hotel sector of 1.4, reflecting the hotel's high wages and overall worker productivity (economic output per worker), relative to the rest of the sector.
- The total (direct, indirect, and induced) impact on state economic output will be an estimated \$38.2 million, approximately half of which will be state GDP (\$20.6 million).

Table 3. Annual state and local impacts of hotel operations Real 2019 dollars

	Direct impact	Indirect & Induced impact	Total impact
	Hotel operations	Hotel suppliers; Businesses selling to employees	Total
Harpers Ferry			
Employment	129	11	140
Labor income	\$5,230,200	\$336,500	\$5,566,700
GDP	\$13,990,200	\$652,100	\$14,642,300
Economic output	\$25,633,000	\$1,192,800	\$26,825,800
WV, statewide			
Employment	129	88	217
Labor income	\$5,230,194	\$3,789,100	\$9,019,300
GDP	\$13,990,194	\$6,648,562	\$20,638,800
Economic output	\$25,633,000	\$12,570,368	\$38,203,400

Note: Figures may not appear to sum due to rounding.

The hotel will support direct hospitality jobs and also jobs in other sectors as a result of the indirect and induced effects. Two out of every 10 estimated jobs are supported through the indirect effects, totaling 49 indirect jobs statewide at businesses that will sell goods and services to the hotel (e.g. financial and professional services and trade and transportation sectors). An additional 39 permanent jobs will be supported in the state through the induced economic impact – primarily at restaurants, retailers, and in education and health care. See Figure 2.

Financial & professional services

Trade & transportation

Hotels & restaurants

Other services

Health & education

Goods-producing sectors

Business support services

Information

Government

Indirect Induced

Figure 2. Distribution of indirect and induced employment, by sector Statewide indirect and induced employment = 88

Note: Figures may not appear to sum due to rounding.

# 5. Estimated state and local tax impacts, by tax type

## 5.1 Local tax impacts resulting from annual operations and capital expenditures

An analysis of the potential local tax impacts included:

- Construction of the proposed Hotel will generate a one-time tax impact of \$1.8 million for Harpers Ferry over 2 years (2-year total) related to on-site construction activity. This tax impact is generated primarily through the Harpers Ferry B&O tax that is assumed to be paid by the Project's construction contractors, as well as sales and use taxes on construction materials and will not recur.
- Annual hotel operations will generate an estimated \$1 million in Harpers Ferry taxes on an annual basis, including taxes remitted on visitor purchases.
- Direct business taxes paid by the Project will account for 40% of the annual tax impact.
- Based on information compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN, the hotel would generate an estimated \$201,000 per year in Harpers Ferry property taxes on real and personal property. Of this, \$191,000 (95%) would be incremental tax paid on real property improvements, \$2,300 (1%) is the current tax on the existing property, and \$7,800 (4%) would be tax on business personal property. Additionally, the Project will generate an average of \$2.2 million per year in county and school district property taxes.
- A TIF agreement would require that a portion of the \$191,000 in incremental property tax revenues be used to service the TIF bond. Assuming the TIF would be funded from ad valorem real and personal property taxes, the tax increment would generate sufficient revenue to service the bond at an assumed 4.5% interest rate over 30 years.
- The Hotel will generate additional revenues through taxes remitted on visitor spending. The analysis estimates that the hotel will remit \$581,200 annually in Harpers Ferry sales tax and hotel/motel occupancy taxes on behalf of visitors. This includes an estimated \$241,200 of Harpers Ferry sales taxes and \$340,000 in Harpers Ferry hotel occupancy tax (net revenue to Harpers Ferry, assuming 50% of revenues will go to the local tourism board). Additionally, \$340,000 will go to the local tourism board (Jefferson County Convention & Visitors Bureau).

Table 4. Total local tax impacts from ongoing hotel operations related to direct, indirect, and induced economic impacts and remitted on behalf of Hotel visitors, by tax type

Real 2019 dollars

	Direct taxes paid by the hotel	Taxes paid by hotel employees, indirect & induced effects, and remitted on visitor purchases	Total local tax impact
Harpers Ferry taxes			·
Property taxes	\$201,100	\$3,900	\$205,000
Sales & use taxes			
Sales & use taxes, paid by businesses & residents	\$600	\$300	\$900
Sales & use taxes, paid by visitors		\$241,200	\$241,200
Other local taxes, including B&O	\$207,400	\$8,800	\$216,200
Hotel/Motel Occupancy Tax, Harpers Ferry portion		\$340,000	\$340,000
Total Harpers Ferry taxes	\$409,100	\$594,200	\$1,003,300
Other local taxes			
Jefferson County + School District	\$2,204,000	\$51,400	\$2,255,400
Other local taxes, statewide		\$76,000	\$76,000
Hotel/Motel Occupancy Tax, local tourism board portion*		\$340,000	\$340,000
Total local taxes, statewide	\$2,613,100	\$1,061,600	\$3,674,700

<sup>\*</sup>Jefferson County Convention & Visitors Bureau

Note: Figures may not appear to sum due to rounding.

Source: EY analysis and data compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN.

# 5.2 State taxes resulting from capital expenditures and operations

Tax revenues supported by capital investments in the construction of Hill Top House Hotel will provide significant tax revenues for both Harpers Ferry and the State of West Virginia.

- In total, economic activity from hotel construction will generate \$4.4 million in total state taxes over two years. This includes an estimated \$1.7 million of state sales taxes paid on construction materials.
- Capital expenditures for the hotel's construction are estimated to support approximately \$1.0 million in individual income tax revenues for the State of West Virginia.
- In total, economic activity from hotel operations will generate more than \$2 million in total state
  taxes annually, including an estimated \$1.4 million of state sales taxes remitted on behalf of
  Hotel guests on their on-site purchases. Through the Tourism Development Credit (TDC), SWaN
  expects to receive a full rebate of the state sales tax paid during annual operations over the 10year TDC period.

Table 5. Total state tax impacts from capital expenditures and operations, by tax type Real 2019 dollars

	Total tax contribution from capital expenditures (cumulative total)	Total tax contribution related to Hotel operations (annual)
State taxes		
Sales & excise taxes		
Sales & excise taxes, paid by business and residents	\$3,055,400	\$306,700
Sales & excise taxes, paid by visitors	n/a	\$1,447,300
Personal income	\$1,020,800	\$234,100
Other state taxes	\$324,600	\$74,500
Total state taxes	\$4,400,900	\$2,062,600

Note: Figures may not appear to sum due to rounding.

Source: EY analysis and data compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN.

# Appendix – Study methodology & limitations

#### Input-output multiplier analysis and the IMPLAN economic model

The estimated economic and tax contributions presented in this study are based on information compiled by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN, specializing in design and procurement, food & beverage and construction, or estimated by EY. The state and local economic and tax impacts related to this activity were estimated using the regional Economic Impact Analysis for Planning (IMPLAN) input-output economic models for Jefferson County and the State of West Virginia, which describe relationships between businesses, households, and governments within each economy. This model follows flows of purchases as purchases of local goods by companies and employees support sales, jobs, and tax revenues. IMPLAN is used by the public sector, as well as private-sector businesses and other researchers and is based on widely accepted methodology for estimating these types of economic linkages.

The magnitude of each economic effect is described in terms of an economic multiplier. The multipliers in the IMPLAN model are based on the Leontief matrix, which estimates the total economic requirements for every unit of direct output in a given industry using detailed inter-industry relationships documented in the input-output model. The input-output framework connects commodity supply from one industry to commodity demand by another. The multipliers estimated using this approach capture all of the upstream economic activity (or backward linkages) related to an industry's production by attaching technical coefficients to expenditures. These output coefficients (dollars of demand) are then translated into dollars of GDP and labor income and number of employees based on industry averages.

In general, tax impacts are estimated based on the historical relationship between state and local tax collections (by tax type) to economic activity (measured as personal income). This ratio estimates the effective tax rates for each tax type as a share of total personal income. This approach assumes that the proposed hotel's employees and employees supported from the indirect and induced economic activity will generate taxes at the average effective rate on economic activity.

#### Interpretation of results and limitations of the analysis

The accompanying analyses were prepared for the use of SWaN. The analyses conducted in this report constitute neither an examination nor a compilation of prospective financial statements nor the application of agreed-upon procedures thereto in accordance with the attestation standards established by the American Institute of CPAs (AICPA). Accordingly, EY does not express an opinion on or offer any other assurances as to whether the analyses are presented in conformity with AICPA presentation guidelines or as to whether the underlying assumptions provide a reasonable basis for the analyses.

The reader should be aware of the following limitations and assumptions when interpreting the results:

• Information on projected capital expenditures and hotel operations was provided to EY by Interstate Hotels & Resorts and other hotel development and management industry specialists retained by SWaN, specializing in design and procurement, food & beverage and construction, for the purpose of this report. This data has not been independently audited or validated by EY. As such, EY offers no opinion on the validity of the data provided by the Company, although it was reviewed for general reasonableness and internal consistency.

- Indirect and induced contributions are estimated using the 2017 detailed IMPLAN input-output economic model of Jefferson County and the State of West Virginia. This methodology is widely used to assess indirect and induced economic linkages.
- Results for Harpers Ferry were estimated as a share of the county-wide indirect and induced
  estimates from the IMPLAN model of Jefferson County. County results were allocated to Harpers
  Ferry based on the town's historical share of employment within each sector in the indirect and
  induced impact.
- In general, indirect and induced tax impacts are estimated based on state and county averages for all industries and households. These estimates do not incorporate industry-specific tax rates, exemptions, or bases.
- Direct state and local sales and use taxes on construction materials were estimated based on the applicable statutory tax rates (6% state; 1% local), assuming 40% of construction expenditures are on taxable materials.
- Hotel accommodations taxes were estimated based on the 5% hotel accommodations tax rate for Harpers Ferry. State and local sales taxes paid by hotel visitors were estimated based on hotel revenues, less revenues for spa services, as personal services are exempt in West Virginia. Estimated taxes paid by hotel guests are not included in the tax impact tables.
- The economic impacts presented in this study (including employment and labor income) reflect the work location. These are jobs that will be based in West Virginia and could be filled by residents or non-residents.
- Given Harpers Ferry's proximity to Virginia and Maryland, the projected capital expenditures and hotel operations will likely support economic activity in these two states. However, the economic impacts presented in this study do not reflect any economic contributions to these two states.