

Appendix I: Impact Fee Cost Basis Calculation Methodology

The cost basis for the county's GMA-based impact fees is established in the TNR. Appendix D identifies the projects in the Transportation Element (TE) of the Comprehensive Plan needed to support new development. It estimates the costs for those projects and makes certain adjustments to those costs to determine the total cost of infrastructure in each TSA that is assessable to new development. See Appendix H for an explanation of cost basis credits.

Cross-TSA Methodology

Beginning with the 2021 update to Appendix D, the cost basis for each Transportation Service Area (TSA) is adjusted to account for the cost of impacts that new development will have system-wide, i.e. on all six TSAs, during the PM peak period. This adjustment creates a more equitable infrastructure cost allocation by attributing a calculated portion of each TSA's cost basis back to the TSA generating the PM peak infrastructure demand.

In traffic modeling, each trip consists of two trip ends: an origin and a destination. An example of this would be leaving your house in the AM (origin) and going to work (destination), then leaving work in the PM (origin) and returning home (destination). Using trip tables from the traffic forecasting model, the new-growth trips can be measured across TSA boundaries and the impacts from those trips assigned to development in the appropriate TSA. In other words, a cross-TSA trip impacts traffic in both TSAs and the financial accountability for those impacts should follow the trip. Cross-TSA trip ends represent a percentage of the new traffic volumes in each TSA, which can be equated to a percentage cost share of the infrastructure need in those TSAs.

Maximum Assessable Impact Fees

The TNR aggregates the costs of improvements needed to support new development, and, using the number of new trips forecast to be generated by new development, calculates the maximum fee amounts that could be assessed in each TSA.

RCW 82.02.060(1) states:

"The local ordinance by which impact fees are imposed:

(1) Shall include a schedule of impact fees which shall be adopted for each type of development activity that is subject to impact fees, specifying the amount of the impact fee to be imposed for each type of system improvement..."

When the original fee schedule table was adopted in 1995 the County Council made a conservative policy decision to establish four impact fees categories for each TSA, urban versus rural and residential versus commercial.

Fee Levels

The fee levels for each TSA were originally adopted by the County Council in August of 1995, amended in December of 2002, and amended again in December 2005. The breakdown of the impact fees in the original fee schedule adopted in 1995 resulted in residential fees 14% higher than commercial fees, and rural fees 8% higher than urban fees. Council also set impact fee rates less than the maximum assessable rates that could have been charged based on the calculations in Appendix D of the TNR. This reduction provides a balance between new developments and existing residents. The rationale was that not all the costs of capacity improvements necessitated by new development should necessarily be borne by new developments. Setting the rates lower than the maximum assessable fee provides a 'cushion' so that the Council does not have to set new fee levels every time projects are finished or modified or cost estimates change.

Impact Fee Calculation Process

System Improvement Projects. New system improvements that are eligible for inclusion in the impact fee cost basis are initially identified in the Comprehensive Plan Transportation Element – Table 14: Recommended County Arterial Improvement Projects.

Total Project Costs in Appendix D. A subset of projects from the TE are listed in Appendix D. Project costs are refined in the TNR as projects progress and more information becomes available. Completed projects are removed, though local expenditures eligible for reimbursement under RCW 82.02.060(8) may remain while capacity exists. The aggregate cost of these projects forms the basis for impact fee calculation.

TSA	Total Project Costs
A	11,747,000
B	7,000,000
C	5,584,570
D	221,185,503
E	45,801,269
F	92,784,658
	384,103,000

Cost Basis Credits. Total project costs in Appendix D are credited (reduced) to account for other sources of public funding that might go toward the projects. See Appendix H. Credits for mitigation interest, city interlocal agreement (ILA) revenue, and grant forecasts are based on historical revenue sources. The mitigation fund balance credit is for impact fees already paid that may be spent on impact fee projects. A credit for taxes possibly paid by new development that could be earmarked for or proratable to an impact fee project is calculated from the financial plan in the 2015 TE. After revenue credits, the net project costs represent the infrastructure need in each TSA that is assessable to new development through impact fees.

		CREDITS							
TSA	Total Project Costs	Mitigation Interest	City ILA Revenue	Grant Forecast	Mitigation Fund Balance	Tax Credit	Total Credits	Pct Credited	Net Project Costs
A	11,747,000	54,209	1,116,955	3,993,980	1,439,000	1,199,022	7,803,166	66%	3,943,834
B	7,000,000	-	329,376	-	-	-	329,376	5%	6,670,624
C	5,584,570	50,806	-	1,898,754	588,000	426,112	2,963,672	53%	2,620,898
D	221,185,503	1,084,751	1,190,555	75,203,071	3,896,000	2,786,170	84,160,547	38%	137,024,956
E	45,801,269	264,248	-	15,572,431	3,955,000	802,109	20,593,788	45%	25,207,481
F	92,784,658	275,815	412,258	31,546,784	3,857,000	663,918	36,755,775	40%	56,028,883
	384,103,000	1,729,829	3,049,144	128,215,020	13,735,000	5,877,331	152,606,324	40%	231,496,676

Cross-TSA Adjustments. Traffic generated by new development adds to congestion across the county, not just within TSA boundaries. Using trip tables from the travel demand model, cross-TSA trip distribution during the PM peak period is quantified as a percentage of the new traffic volumes in each TSA. Snohomish County's travel demand model is a refined version of the PSRC's trip-based regional model. It was developed to support the 2015 Comprehensive Plan update and includes approximately 1,500 analysis zones and 700 micro analysis zones within Snohomish County.

		TSA Being Impacted					
		A	B	C	D	E	F
TSA Creating Impact	A	90%	13%	3%	3%	2%	2%
	B	6%	64%	16%	2%	3%	1%
	C	1%	15%	59%	3%	10%	2%
	D	3%	7%	13%	75%	38%	53%
	E	0.3%	2%	8%	7%	34%	10%
	F	0.3%	1%	1%	10%	13%	31%
	Total Impact	100%	100%	100%	100%	100%	100%

Impact Fee Cost Basis. The impact fee cost basis is the total cost of transportation infrastructure necessitated by development from each TSA. The cost basis is determined by combining the net project costs, after credits, with the trip distribution table above. Cross-TSA trips represent a percentage of the new traffic volumes in each TSA which can be equated to a percentage cost share of the infrastructure need in each TSA. This better aligns infrastructure cost with TSA development and trip generation.

Share of System Improvement Costs in Each TSA							
From TSA	3,943,834	6,670,624	2,620,898	137,024,956	25,207,481	56,028,883	Impact Fee Cost Basis
	A	B	C	D	E	F	
A	\$3,537,761	\$864,392	\$70,472	\$4,196,956	\$455,598	\$899,872	\$10,025,051
B	\$228,233	\$4,261,692	\$422,834	\$3,317,864	\$815,996	\$820,936	\$9,867,555
C	\$43,947	\$971,149	\$1,547,706	\$3,877,931	\$2,502,388	\$1,199,830	\$10,142,951
D	\$110,747	\$433,918	\$331,555	\$102,229,919	\$9,696,754	\$29,822,079	\$142,624,973
E	\$10,547	\$103,314	\$209,403	\$9,861,430	\$8,554,360	\$5,778,127	\$24,517,180
F	\$12,598	\$36,160	\$38,928	\$13,540,856	\$3,182,385	\$17,508,039	\$34,318,966
							\$231,496,676

New Trips by Development Type. Based on the projected growth forecast in the County's GMACP, the travel demand model forecasts new urban and rural residential and commercial growth in each TSA. These new trips create the demand for the system improvements identified in the TE.

TSA	RR	UR	RC	UC	Total
A	28,270	436	15,902	276	44,884
B	20,208	2,676	3,480	413	26,777
C	10,336	1,660	2,823	1,131	15,951
D	1,101	69,976	455	32,765	104,297
E	11,921	8,908	3,983	5,214	30,026
F	-	18,701	-	6,152	24,853

Maximum Assessable Fees. The fees below are the Maximum Assessable Fee (MAF) rates calculated from the cost basis and the trip growth forecast table. Per existing Council policy, fees vary based on type of development and location. Residential fees are 14% higher than commercial fees, and rural fees are 8% higher than urban fees. Accordingly, rural residential fees are the highest in each TSA while urban commercial fees are the lowest. The MAF for each TSA is calculated using the following algebraic formula:

$$\text{Cost Basis} \div ((\text{RR_ADT} \times 1.0) + (\text{UR_ADT} \times 0.92) + (\text{RC_ADT} \times 0.86) + (\text{UC_ADT} \times 0.78))$$

LOCATION	TYPE	NEW TRIP AMOUNT	
Transportation Service Area (TSA)	Residential/Commercial	Developments Inside the Urban Growth Area (UGA)	Developments Outside the Urban Growth Area (UGA)
A	RESIDENTIAL	\$217	\$236
A	COMMERCIAL	\$184	\$203
B	RESIDENTIAL	\$350	\$380
B	COMMERCIAL	\$296	\$327
C	RESIDENTIAL	\$615	\$668
C	COMMERCIAL	\$521	\$574
D	RESIDENTIAL	\$1,435	\$1,560
D	COMMERCIAL	\$1,217	\$1,342
E	RESIDENTIAL	\$817	\$888
E	COMMERCIAL	\$693	\$764
F	RESIDENTIAL	\$1,430	\$0
F	COMMERCIAL	\$1,230	\$0

Impact Fee Distribution. As described above, fees are calculated and assessed based on the overall impacts a TSA's development has on each of the six TSAs. After impact fees are collected, they are administratively distributed to the appropriate accounting fund for each TSA. This ensures that the fees are only spent in the TSA for which they were collected. The following table reflects the distribution percentage for impact fees assessed in each TSA.

Developing TSA												
Project in TSA A		Project in TSA B		Project in TSA C		Project in TSA D		Project in TSA E		Project in TSA F		
Fee Distribution	TSA A	35.30%	TSA A	2.30%	TSA A	0.40%	TSA A	0.10%	TSA A	0.00%	TSA A	0.00%
	TSA B	8.60%	TSA B	43.20%	TSA B	9.60%	TSA B	0.30%	TSA B	0.40%	TSA B	0.10%
	TSA C	0.70%	TSA C	4.30%	TSA C	15.30%	TSA C	0.20%	TSA C	0.90%	TSA C	0.10%
	TSA D	41.90%	TSA D	33.60%	TSA D	38.20%	TSA D	71.70%	TSA D	40.20%	TSA D	39.50%
	TSA E	4.50%	TSA E	8.30%	TSA E	24.70%	TSA E	6.80%	TSA E	34.90%	TSA E	9.30%
	TSA F	9.00%	TSA F	8.30%	TSA F	11.80%	TSA F	20.90%	TSA F	23.60%	TSA F	51.00%
	Total	100.00%		100.00%		100.00%		100.00%		100.00%		100.00%