

## MEMORANDUM

Date: November 14, 2011

To: Rob Brueck, Hauge Brueck

From: Katy Cole, P.E., Fehr & Peers  
Marissa Harned, Fehr & Peers

**Subject: HMR Ski Area Master Plan Trip Generation and VMT Analysis for the Transfer of TAU/ERU**

RN08-0403

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Trip generation and vehicle miles of travel (VMT) analyses were performed for the tourist accommodation units (TAU) and equivalent residential units (ERU) proposed for transfer to the HMR project area in the Master Plan project description. HMR currently owns 152 TAUs and 26 ERUs that are available for use in Master Plan implementation. HMR proposes to convert 50 of the TAUs into ERUs under the provisions of TRPA Code Chapter 33.7.

Daily trip generation rates from the TRPA Trip Table and *Trip Generation*, 8<sup>th</sup> Edition (ITE) were used to calculate the daily trip generation of the TAUs and ERUs, and average trip lengths from the TRPA travel demand model were used to calculate VMT. The Hotel trip generation rate was used to calculate TAU trips and the Condominium rate was used to calculate ERU trips. The tourist trip length was used to calculate VMT generated by the TAUs, and the residential trip length was used to calculate VMT generated by the ERUs.

The project will include 102 TAUs including 89 units currently in use by the Tahoe Inn and 13 banked units that previously belonged to the North Shore Lodge. The project will include 76 ERUs including 46 banked TAUs that will be converted to ERUs, 4 TAUs currently in use that will be converted to ERUs, and 26 banked units/development rights. The TAUs and ERUs were analyzed under two scenarios. Scenario 1 analyzes the TAUs that will be converted to ERUs as ERUs, using the Condominium trip generation rate and the residential trip length. Scenario 2 analyzes the TAUs that will be converted to ERUs as TAUs (recognizing their current use and what they could be used for elsewhere), using the Hotel trip generation rate and the tourist trip length.

### SCENARIO 1 ANALYSIS

**Table 1** shows the TAU and ERU trip generation and VMT calculations assuming the TAUs that will be converted to ERUs will generate trips associated with an ERU.

TABLE 1 TAU/ERU TRIP GENERATION AND VMT – SCENARIO 1					
	Density	Daily Trip Rate <sup>1</sup>	Daily Trips	Average Trip Length <sup>2</sup>	Daily VMT
<b>TAUs</b>					
TAUs Currently In Use (Tahoe Inn)	89	8.92	794	7.77	6,168
TAU Banked Units	13	8.92	116	7.77	901
TAU Total	102		910		7,069
<b>ERUs</b>					
TAUs Banked Units to be Converted to ERUs (Tahoe Inn)	46	5.86	270	4.42	1,191
TAUs Currently In Use to be Converted to ERUs (Tahoe Inn)	4	5.86	23	4.42	104
ERU Banked Units/Development Rights	26	5.86	152	4.42	673
ERU Total	76		445		1,968
Notes: <sup>1</sup> Daily trip generation rates are from the TRPA Trip Table and <i>Trip Generation</i> , 8 <sup>th</sup> Edition (ITE) <sup>2</sup> Average trip lengths were calculated using the TRPA travel demand model Source: Fehr & Peers, 2011					

**Table 2** provides a summary of the overall vehicle trips and VMT generated by the TAUs and ERUs that will be used by the Homewood project under Scenario 1.

TABLE 2 TAU/ERU TRIP GENERATION AND VMT SUMMARY – SCENARIO 1			
	Density	Daily Trips	Daily VMT
TAUs Currently In Use	89	794	6,168
TAU Banked Units	13	116	901
TAU Banked Units Converted to ERUs	46	270	1,191
TAUs Currently In Use Converted to ERUs	4	23	104
ERU Banked Units/Development Rights	26	152	673
<i>Total</i>	<i>178</i>	<i>1,355</i>	<i>9,037</i>
Source: Fehr & Peers, 2011			

As shown in Table 2, the TAUs and ERUs to be used by Homewood generate 1,355 daily trips and 9,037 VMT when the TAUs to be converted to ERUs are analyzed as ERUs. Note that this analysis does not consider internal capture or alternative mode reductions, but rather looks at the raw rates for hotels and condominiums. The trip generation and VMT would likely be lower if these factors were considered, but would be dependent on how banked units were operated in a new development.

**SCENARIO 2 ANALYSIS**

**Table 3** shows the TAU and ERU trip generation and VMT calculations assuming the TAUs that will be converted to ERUs will generate trips associated with a TAU.

<b>TABLE 3 TAU/ERU TRIP GENERATION AND VMT – SCENARIO 2</b>					
	Density	Daily Trip Rate <sup>1</sup>	Daily Trips	Average Trip Length <sup>2</sup>	Daily VMT
<b>TAUs</b>					
TAUs Currently In Use (Tahoe Inn)	89	8.92	794	7.77	6,168
TAU Banked Units	13	8.92	116	7.77	901
TAU Total	102		910		7,069
<b>ERUs</b>					
TAUs Banked Units to be Converted to ERUs (Tahoe Inn)	46	8.92	410	7.77	3,186
TAUs Currently In Use to be Converted to ERUs (Tahoe Inn)	4	8.92	36	7.77	280
ERU Banked Units/Development Rights	26	5.86	152	4.42	673
ERU Total	76		598		4,139
Notes: <sup>1</sup> Daily trip generation rates are from the TRPA Trip Table and <i>Trip Generation</i> , 8 <sup>th</sup> Edition (ITE) <sup>2</sup> Average trip lengths were calculated using the TRPA travel demand model					
Source: Fehr & Peers, 2011					

**Table 4** provides a summary of the overall vehicle trips and VMT generated by the TAUs and ERUs that will be used by the Homewood project under Scenario 2.

<b>TABLE 4 TAU/ERU TRIP GENERATION AND VMT SUMMARY – SCENARIO 2</b>			
	Density	Daily Trips	Daily VMT
TAUs Currently In Use	89	794	6,168
TAU Banked Units	13	116	901
TAU Banked Units Converted to ERUs	46	410	3,186
TAUs Currently In Use Converted to ERUs	4	36	280
ERU Banked Units/Development Rights	26	152	673
<i>Total</i>	<i>178</i>	<i>1,508</i>	<i>11,208</i>
Source: Fehr & Peers, 2011			

As shown in Table 4, the TAUs and ERUs to be used by Homewood generate 1,508 daily trips and 11,208 VMT when the TAUs to be converted to ERUs are analyzed as TAUs. Note that this

analysis does not consider internal capture or alternative mode reductions, but rather looks at the raw rates for hotels and condominiums. The trip generation and VMT would likely be lower if these factors were considered, but would be dependent on how banked units were operated in a new development.