

April 30, 2018

## Class B and Class C Roads

### Apportionment Formula

UCA 72-2-108

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Definitions:

T = total B&C Roads funds available for allocation from state tax revenue

$\rho_{RM}$  = paved road miles

$\sigma_{RM}$  = non-paved road miles

$\omega_{RM} = 5 \cdot \rho_{RM} + 2 \cdot \sigma_{RM}$  = weighted road miles

$p_{county}^{unincorporated}_i$  = population of the  $i^{th}$  unincorporated county

$p_{municipality}_i$  = population of  $i^{th}$  municipality

$p_{county}_i$  = total population of  $i^{th}$  county

$A_i$  = allocation for the  $i^{th}$  county or municipality

$P_i$  = population for the  $i^{th}$  county or municipality

### Allocations

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(1) If  $p_{county}^{unincorporated}_i$  or  $p_{municipality}_i < 14,000$  and  $A_{i,FY>2017} < A_{i,FY=1997}$ , then:

$$A_{i,FY_j}^{HH_1} = \max\{A_{i,FY_{2015}} \cdot 1.2 \cdot (1 + g_{FY_{j-1}}), A_{i,FY_{j-1}} \cdot (1 + g_{FY_{j-1}})\}$$

where g represents the growth or decline in total funds available (T) for the period  $FY_{j-1}$  from the period  $FY_{j-2}$ ; HH represents hold harmless entities; and  $FY_j$  represents the  $j^{th}$  fiscal year.

(2) If an entity previously qualified for hold harmless under (1) prior to 2017 and is no longer eligible, then:

$$A_{i,FY_j}^{HH_2} = \max\{A_i, A_{i,FY_{j-1}}\}$$

(3) Subject to section (4), an entity's allocation is their apportioned ratio of the total allocation:

$$T_{adj,FY_j} = T_{FY_j} - \sum_i A_{i,FY_j}^{HH_1} - \sum_i A_{i,FY_j}^{HH_2}$$
$$A_{i,FY_j}^{Not\ HH} = 0.5 \cdot T_{adj,FY_j} \cdot \left(\frac{\omega_{RM_i}}{\sum_{i=1}^N \omega_{RM_i}}\right) + 0.5 \cdot T_{adj,FY_j} \cdot \left(\frac{P_i}{\sum_{i=1}^N P_i}\right)$$

- (4) If  $\frac{P^{county\_unincorporated}}{(P^{county\_unincorporated} + \sum_{i=1}^N P_{municipality_i})} < 0.14$ , then the population allocation to the unincorporated county and municipalities within the county is adjusted.

$A_T$  = total allocation to the county area

$$A^{county\_unincorporated} = \max\left\{\frac{P^{county\_unincorporated}}{\sum_{i=1}^N P_i}, 0.14 \cdot \left(\sum_{i=1}^N P_i\right)\right\} \cdot A_T$$

$$A_{municipality_i} = \left(\frac{P_{municipality_i}}{\sum_i P_{municipality_i}}\right) \cdot (A_T - A^{county\_unincorporated})$$