

Update to Two Developed Sector Land Use Loading Rate Ratios

Memo for Urban Stormwater Workgroup (USWG) Meeting – June 16, 2026

Background: The TCI loading rate for Phase 6 was derived by applying the efficiencies from the Tree Canopy Expert Panel to a weighted average of the Roads and Impervious Non Roads (INR) land use loading rates. New data shows that the weighted average used in P6 was incorrect, and resulted in Tree Canopy over Impervious loading higher than Buildings and Other. Further, the compacted pervious land use was newly added to the developed sector, splitting off areas such as highway medians, cloverleafs, transmission corridors, and some barren developed lands from the previous Mixed Open category. This new land use needed a new relative loading ratio.

Updates: To resolve the TCI issue, we corrected the weighting of tree canopy over roads, vs impervious non-roads, while incorporating updated data from the National Stormwater Quality Database. For the compacted pervious land use, we used concentration data from open space and mixed transportation/open space land uses in the National Stormwater Quality Database, and applied a runoff factor in-between turf and impervious to convert concentrations to loads as a means to derive the relative loading ratio. The resulting new loading ratios are below (note that all ratios are relative to Roads):

LandUse	P7 TN Relative Loading Rate	P6 TN Relative Loading Rate	P7 TP Relative Loading Rate	P6 TP Relative Loading Rate
All Tree Canopy over Turfgrass	0.38	0.38	0.79	0.79
All Tree Canopy over Impervious	0.84	0.91	0.83	0.91
CSS&MS4 Construction	1.19	1.19	3.89	3.89
All Roads	1.02	1.02	1.03	1.04
All Buildings and Other	0.80	0.81	0.83	0.83
All Turf Grass	0.50	0.50	1.03	1.04
Compacted Pervious	0.46	NA	0.91	NA
Solar Pervious	0.50	NA	1.03	NA
Solar Impervious	0.80	NA	0.83	NA