**Trail user density considerations** JM 5 Aug 2015, Rev. 26 Aug

The committee has been concerned with how to include user density within the trail standards.

I have tried to collect and draft some concepts here on how we might attempt defining the application of user density concerns. The intent is to aid our joint consideration of the concern, by having something to work from.

In the most recent well attended meeting the concept that user density does not directly or necessarily define the trail standard level, some consensus in agreement seemed to have been largely reached.

A major reason that user density does not fit within the trail level definitions is that a broad range of user density can apply to almost any trail level; a high user density trail could apply to almost any one of the trail levels with probably the exception of Level 1, the least developed trail level, which tends by definition to not be intended for, or expected to experience, a large density of users.

Related is that user density is rather difficult to define or quantify (or has not yet been adequately defined) in a meaningful manner,\* particularly for a new trail.

However, user density should be a factor to consider particularly in planning of new trails or where pressure exists to substantially alter a trail due to any factors of usage or to desired change of its standard level. Such consideration does not necessarily alter the classification of the trail, and does not in itself define the Trail Level, particularly for existing trails.

Accordingly, rather than to incorporate directly into the defined trail levels, at least not more than very open guidelines, user density should be addressed in a note or appendix which is specifically referred to on a page of the trail level tables as an additional factor to consider.

The number of trail users or trail density as may be defined, should be estimated and used in conjunction with the application of the trail standards to specific projects as applicable. The quantity of users or types of users expected, the latter being more explicitly applicable to trail standards, may affect the design and/or the details of the trail construction. The affect so anticipated and defined could be different for a trail currently in use or one to be developed.

These considerations would be supplemental to the specific trail and planned trail level standard. Details and expected adjustments are to be determined at the time a trail is defined or when there is consideration of a change in class of an existing trail, due to expected usage.

Generally, the consideration of user density may entail an adjustment to the details within a class of trail, and these would be defined as supplemental to the class level standard. To what extent of change to the trail specification may be appropriate and defined must be determined in each case where such concern arises. Examples would be widening or hardening the tread for an expected massive user density, but not necessarily alter the amount of roughness tolerated or the trail level.

In conjunction with the estimated density of users, the expected ability of the majority of those users could also be estimated to aid determination of the trail level to be developed as guided by the user classifications that have been defined with each trail level.

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\* Note to Trail User Density definitions as tagged above:

For instance: number of users per day, maximum user flux per hour; users per mile- which

is in itself not definite as it is lacking a time factor. Not clear at this writing is that a single

measure is able to capture the intent of defining impact or clutter or users.

This discussion is a combination of reasons, explanations, and suggested wordings. As such, with whatever adjusted agreement may be reached, a more final product requires condensation into a clear statement of guidance to apply in defining an appropriate adjustment to the standard for a trail level chosen for specific trail projects.