

Andreas Von Der Dunk¹, Adrienne Grêt-Regamey², Anna M. Hersperger¹

¹Swiss Federal Research Institute WSL

²ETH Zürich, Institute for Spatial and Landscape Planning IRL;

'Quality of life' under pressure in peri-urban areas: who are the culprits?

The aim of pro-active spatial planning is to allocate land uses so to avoid land use conflicts as much as possible, hereby contributing to residential quality of life. The necessary knowledge for this task, however, is often precluded due to the complexity of land use conflicts. A typology of land use conflicts may uncover a systematic order and general processes that transcend individual differences between conflicts and thus help to reduce this complexity.

In order to create such a typology this study utilizes a land use conflict model which is based on the concept of landscape services: peri-urban landscapes provide multiple goods and services (for simplicity reasons hereafter only referred to as services). The externalities of some of these services may trigger land use conflicts if they negatively affect other services. For example, the service of recreation (e.g sports ground activities) may trigger a land use conflict if the associated externality of noise (e.g. shouting and cheering) negatively affects the nearby service of residential housing.

Based on this model an empirical survey was conducted in a densely populated peri-urban area of Aarau, Switzerland. Using newspaper articles a total of 164 land use conflicts were recorded for a period of three years (2007-2009). For each conflict the trigger service, its associated externality, and the affected service were recorded.

The externalities involved were chosen as the main distinctive feature to base the conflict typology on, as their variability was greater than that of the trigger and affected services.

Using cluster analysis 6 preliminary conflict types have been identified:

1. Health hazards (non-ionising radiation, ...)
2. Visual blight (unappealing changes to the landscape or townscape)
3. Noise pollution (traffic, ...)
4. Preservation-of-the past (demolition of old buildings, ...)
5. Ecosystem conservation (habitat protection, ...)
6. Society/lifestyle (profound changes to the established neighbourhood)

Work on this project is still in progress: upcoming analyses of the preliminary conflict types will further advance knowledge on how land use conflicts affect residential quality of life. Already, "Noise pollution" has been identified as the most frequent conflict type. Also, the number of articles per conflict is being considered as a surrogate for conflict intensity, which makes "Health hazards" the conflict type with the highest intensity.