

# Winter usage, wear and carrying capacity of sporting fields in the Sydney Basin | Preliminary Findings

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## Key findings:

1. Given the vital role of sporting fields in society, it is surprising to find very limited information exists on typical usage levels. Turf NSW commissioned Dr Mick Battam to evaluate winter usage hours, wear levels and carrying capacities of sporting fields in the Sydney Basin. The evaluation included data for 1157 sporting fields located in the 24 councils.
2. The study identified a significant difference between the scheduling data and actual field usage. Eastern LGAs identified around 22 hours per week of actual usage and 2 hours per week of school use. Western LGA identified 12 hours per week of actual usage, with minimal information on school use. Vast amounts of blanket booking were observed with booked hours on average about 2.3 times more than actual usage. As such, booked hours should NOT be used in assembling sport field management strategies as it would lead to major errors and the misallocation of funds.
3. Most councils have between 1 and 3 fields that are “booked” for more than 60 hours per week. In almost all cases, these sites have been blanket booked, with actual usage usually much lower. This is due to the limitations on sport from other life commitments (e.g. work, school and sleep). Formal sport is typically played for up to 5.5 hours each weeknight (usually 5 hours per night, from 4:30 to 9:30 pm), and 9 hours per day (from 8 am to 5 pm) on weekends – up to 43 hours per week.
4. Many natural turf fields struggle as they have been poorly constructed and/or maintained. Lack of funds is often a major impediment to natural turf, with one of the most intensely used fields in Sydney not even having a pop-up irrigation system (~\$150,000) even though this council has spent more than \$10 million dollars installing synthetic fields.
5. Carrying capacity refers to the amount of wear (as distinct from usage hours) that a sporting field can handle whilst maintaining an acceptable playing surface
6. A comparison of the wear levels (as distinct from usage hours) on 152 sporting fields from the eastern LGA area found these exceeded the current carrying capacity of 67% of

fields. However, most of these fields were receiving low to moderate levels of wear and were struggling as they had been poorly constructed and/or maintained. If all 152 fields were constructed/maintained according to best practice, then the collective carrying capacity of these sites could be increased by 59%.

7. By addressing the factors limiting natural turf performance over a five-year period, a council in southern Sydney reduced their annual spend on turf patching from \$280,000 to \$5,000. This council also reduced the number of fields in poor condition at the end of the winter sport season from 54 to 9.
8. The factors limiting turf performance are site specific. Whilst some sites may have inadequate soil depth, others struggle because of an inappropriate turf cultivar, poor drainage and/or soil that sets hard or has low levels of fertility. However, once these limitations have been addressed, most fields can handle very high levels of wear. The characteristics of 12 natural turf fields that handle 40 to 60+ hours per week of use is provided.
9. Booked hours should not be used in sports strategies for assessing the extent to which fields are over or under capacity because (a) booked hours do not provide a reliable means for estimating wear levels, with a 5-fold variation in wear levels observed for a given number of booked hours and (b) booked hours substantially overestimate actual hours of sport use based on this study of 1157 sporting fields.

The final report is not yet available for circulation. To be advised by Dr Mick Battam.