



Media Releases Sporting grounds flourish with smart technology

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SMART technology has allowed Ipswich City Council in South East Queensland to get the best out of their sporting fields without wasting a single drop of water by integrating soil moisture metering with an irrigation control system.

Parks, Sport and Recreation Committee Chairperson, Councillor David Morrison said the Council had to start thinking smarter as a seven year drought was starting to effect the city's sporting grounds and some fixtures were even having to be cancelled as water was simply drying up.

"Drought and water costs were placing pressure on sports field managers everywhere to reduce consumption regardless of the water source.

"We had to look outside the square; get away from continuous irrigation of fields, especially when the region was in drought and rate payers were themselves on level 5 water restrictions.

"We had to find a balance of giving the field just enough water before they deteriorated and wilted to a point of no return."

Cr Morrison said the installation of smart technology into its sports fields has now allowed Ipswich City Council to better manage irrigation water use.

"We had to take a holistic approach to turf management which required a range of physical maintenance activities to complement irrigation for turf growth.

"Therefore we needed to know all of our soil types, including compaction reduction, nutrient status and requirements for weed control and our use of soil ameliorants."

Cr Morrison said the Council needed to know three things: the condition of turf wanted, when to intervene with irrigation, and how much water to apply.

"We needed our sports fields 'fit for play' in drought conditions and to achieve this Council worked with MAIT Industries to install soil moisture sensors at two depths, at the root zone of the grass and at a depth of 300mm into the fields.

"This information is web based and in graphical format which allows a quick visual appreciation of trends and when soil moisture is likely to reach the pre-determined low point.

"The low point is site specific and soil type specific and is set to just above permanent wilting point.

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"When set to automatic, it overrides the irrigation controller and enables irrigation at scheduled times once the soil moisture reaches the low set point and will continue irrigation until a high set point is reached where the irrigation is disabled until the low set point is reached again."

Cr Morrison said the next piece of the puzzle was to have a system that enabled fine tuning of irrigation scheduling and run times.

"Ipswich City Council has so far connected 33 fields at 18 locations to the Hunter Irrigation Management and Monitoring System (IMMS).

"The system allows efficient manipulation of irrigation scheduling across all fields from a central location.

"This allows both a fast response to emergent situations or simply fine tuning of the scheduling and run times to complement the soil moisture needs. The system also lets us know immediately there are any problems with the irrigation.

"The two systems are integrated in practice but currently require data to be sourced from each. The MAIT system is a major aid in deciding when and how much irrigation to apply and the Hunter IMMS allows us to efficiently schedule the minimum amount of water required.

"The result is the best possible playing surface for our sports people with the least amount of water use.

"In a six month trial, Council saved an average of 1ML and over \$1,800 per hectare in comparison with what we could have used under the Queensland Water Commission's allocation allowance.

"The savings in water alone as well as the efficient use of staff resources will quickly pay for the infrastructure and ensure these systems combined are one of the most environmentally friendly things we have done for our city and our sports people," Cr Morrison said.