

## **Sport and Recreation Reference Group**

**Report SR04: - 15 March 2021** 

Attachments:

SR04 Hybrid Turf Trial Update November 2020

**SUBJECT:** Hybrid Turf Trial Update November 2020

**AUTHOR:** David Manson, Manager Parks and Reserves

**ENDORSED BY:** Rob Emerson, Director Open Space and Environmental Services

## **EXECUTIVE SUMMARY:**

This report provides updated information on the trial of Hybrid Turf

## FINANCIAL IMPLICATIONS:

Nil

## **RECOMMENDATION:**

- **1. THAT** the report be received.
- **2. THAT** Council continue to monitor the performance of the Hybrid turf over the high impact winter season.

#### LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

Direction: 1. Our Living Environment

Outcome: 1.5 Public open space, recreation facilities and services that meet community

needs

#### **BACKGROUND**

At the meeting of the Sport and Recreation Reference Group held on the 20th of November 2020 a report presenting information on the trial of the Hybrid turf in Primrose Park was provided to the group. This report is added as an attachment.

The Sport and Recreation Reference Group Resolved to recommend:

- **1. THAT** the Hybrid Turf Trial Update November 2020 report be received.
- **2. THAT** Council continue to monitor the performance of the Hybrid Turf over the growing season.

## **CONSULTATION REQUIREMENTS**

Community engagement will be undertaken in accordance with Council's Community Engagement Protocol.

#### SUSTAINABILITY STATEMENT

The sustainability implications are of a minor nature and did not warrant a detailed assessment.

#### **DETAIL**

Council staff have continued to monitor and maintain the Hybrid Turf installation area of Primrose Park.

Council staff have been benchmarking the trial area with the goal mouth at the western end of the field using photographic records and the following methods of measurement

- Grass Cover Measured by visual means and recorded as a % of the area
- **Levelness** Measured (as a whole area) by visual means and recorded as either Excellent, Good, Acceptable or Poor
- **Hardness** Measured (as a whole area) by visual means and using a prod to penetrate the area. Recorded as Soft, Normal, Acceptable and Hard

**October 2020 -** The shortened Winter season has concluded and the results in October were as follows:

|                    | Oct-20                     |            |  |
|--------------------|----------------------------|------------|--|
|                    | Hybrid Grass Natural Grass |            |  |
|                    | Area                       | Area       | Comments   |
|                    |                            |            | Warmer weather and optimum growing conditions have resulted in very good turf recovery It appears as if the turf is recovering quicker within the Hybrid |
| <b>Grass Cover</b> | 85%                        | 75%        | Turf area  |
| Levelness          | Good                       | Good       |  |
| Hardness           | Acceptable                 | Acceptable |  |

**November 2020** – Grass continues to recover well. Staff undertaking seasonal renovation works which is enhancing recovery. The photos show topdressing works undertaken.

|                    | Nov-20       |                            |                                       |  |  |
|--------------------|--------------|----------------------------|---------------------------------------|--|--|
|                    | Hybrid Grass | Hybrid Grass Natural Grass |                                       |  |  |
|                    | Area         | Area                       | Comments                              |  |  |
|                    |              |                            | Renovation practices such as          |  |  |
|                    |              |                            | Topdressing, Aerating and Fertilising |  |  |
| <b>Grass Cover</b> | 90%          | 80%                        | undertaken                            |  |  |
| Levelness          | Good         | Good                       |                                       |  |  |
| Hardness           | Acceptable   | Acceptable                 |                                       |  |  |

**December 2020** – Good growing conditions enhancing turf recovery

|                    | Dec-20              |                            |                                     |  |  |
|--------------------|---------------------|----------------------------|-------------------------------------|--|--|
|                    | <b>Hybrid Grass</b> | Hybrid Grass Natural Grass |                                     |  |  |
|                    | Area                | Area                       | Comments                            |  |  |
|                    |                     |                            | Warm weather with good rain helping |  |  |
| <b>Grass Cover</b> | 95%                 | 90%                        | recovery                            |  |  |
| Levelness          | Good                | Good                       |                                     |  |  |
| Hardness           | Acceptable          | Acceptable                 |                                     |  |  |

**January 2021** – Areas are close to full coverage. Final areas to grow in are mainly the centre of the goal mouths.

|                    | Jan-21       |                            |                                      |  |  |
|--------------------|--------------|----------------------------|--------------------------------------|--|--|
|                    | Hybrid Grass | Hybrid Grass Natural Grass |                                      |  |  |
|                    | Area         | Area                       | Comments                             |  |  |
|                    |              |                            | Close to full cover just a few small |  |  |
| <b>Grass Cover</b> | 98%          | 95%                        | spots to fill in                     |  |  |
| Levelness          | Good         | Good                       |                                      |  |  |
| Hardness           | Acceptable   | Acceptable                 |                                      |  |  |

**February 2021** – Areas are at full coverage. Final areas to grow in are mainly the centre of the goal mouths

|                    | Feb-21       |                              |  |  |  |
|--------------------|--------------|------------------------------|--|--|--|
|                    | Hybrid Grass | Hybrid Grass   Natural Grass |  |  |  |
|                    | Area         | Area                         | Comments                               |  |  |
|                    |              |                              | Small amounts of training have begun   |  |  |
| <b>Grass Cover</b> | 98%          | 98%                          | and can see the wear in places already |  |  |
| Levelness          | Good         | Good                         |  |  |  |
| Hardness           | Acceptable   | Acceptable                   |  |  |  |

# **Photographic Documentation Below**





























## **Sport and Recreation Reference Group**

## Report SR04 - 10 November 2020

Attachments:

Nil

**SUBJECT:** Hybrid Turf Trial Update - November 2020

**AUTHOR:** David Manson, Manager Parks and Reserves

**ENDORSED BY:** Rob Emerson, Director Open Space and Environmental Services

#### **EXECUTIVE SUMMARY:**

This report provides updated information on the trial of Hybrid Turf.

## FINANCIAL IMPLICATIONS:

Nil.

## **RECOMMENDATION:**

- **1. THAT** the Hybrid Turf Trial Update November 2020 report be received.
- **2. THAT** Council continue to monitor the performance of the Hybrid Turf over the growing season.

#### LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

Direction: 1. Our Living Environment

Outcome: 1.4 Public open space and recreation facilities and services meet community

needs

#### **BACKGROUND**

At the meeting of the Sport and Recreation Reference Group held on 19 August 2019, a report presenting information on synthetic sports surfaces, in particular new technologies that are emerging in the industry, was provided to the Group.

The Sport and Recreation Reference Group resolved to recommend:

- 1. THAT the report in relation to Synthetic Surfaces New Technologies be received.
- 2. THAT the Sport & Recreation Reference Group recommend that Council proceed with a trial of hybrid turf in Primrose Park within the goal mouth (a 100m<sup>2</sup> area).
- 3. THAT the Sport & Recreation Reference Group recommend that Council proceed with the (5%) hybrid turf and (95%) natural grass as soon as possible, and that the hybrid turf be "ready for use" to play on.
- 4. THAT Council conduct community consultation.
- 5. THAT Council share results with the NSROC Committee.

Council staff undertook the installation of the Hybrid Turf in January 2020. The area has now been subjected to a full (COVID-19 affected) Winter season.

## **CONSULTATION REQUIREMENTS**

Community engagement will be undertaken in accordance with Council's Community Engagement Protocol.

#### **DETAIL**

Council staff have been benchmarking the trial area with the goal mouth at the Western end of the field using photographic records and the following methods of measurement:

- Grass Cover Measured by visual means and recorded as a % of the area.
- Levelness Measured (as a whole area) by visual means and recorded as either Excellent, Good, Acceptable or Poor.
- **Hardness** Measured (as a whole area) by visual means and using a prod to penetrate the area. Recorded as Soft, Normal, Acceptable and Hard.

#### Winter Season – Covid-19

It is important to note the changes in the Winter season (due to Covid-19) as it has changed the timeframes of play significantly. This will also influence the normal wear patterns of the fields.

Due to the COVID-19 Pandemic the Winter season for 2020 was delayed. This allowed extra turf grass recovery time, resulting in the fields being of a much higher quality surface than what normally occurs at the start of the Winter Season.

Initially small amounts of training began in early March 2020 prior to the full lockdown in mid-March. The lockdown placed all training and competitions on hold until restricted training was introduced in May. It wasn't until June where full training was able to take place. The month of July saw full competition games resume.

The season proper had gone a from a start date of 1 April 2020 back to early July. This subsequently reduced the season significantly before it was agreed to give an extension of the Winter season. This resulted in a shorter season than normal with games condensed throughout that period.

## Season 2019 and 2020 Comparisons

The difference in the wear patterns of the shortned season due to COVID-19 can be seen quite clearly when comparing the below aerial shots taken in September and October 2019 and then late September 2020.







## **Timelines**

March 2020 - Small amounts of training before the full lockdown came into place.

|                    | March 2020          |                            |  |  |  |
|--------------------|---------------------|----------------------------|--|--|--|
|                    | <b>Hybrid Grass</b> | Hybrid Grass Natural Grass |  |  |  |
|                    | Area                | Area                       | Comments                                 |  |  |
| <b>Grass Cover</b> | 100%                | 100%                       |  |  |  |
| Levelness          | Excellent           | Excellent                  | No significant impacts on the areas yet. |  |  |
| Hardness           | Normal              | Normal                     |  |  |  |

**April 2020 -** Small amounts of social play within COVID-19 restrictions. There was no club training at all.

|                    | April 2020          |               |  |
|--------------------|---------------------|---------------|--|
|                    | <b>Hybrid Grass</b> | Natural Grass |  |
|                    | Area                | Area          | Comments                               |
| <b>Grass Cover</b> | 100%                | 100%          |  |
| Levelness          | Excellent           | Excellent     | No real game impacts on the areas yet. |
| Hardness           | Normal              | Normal        |  |

May 2020 - The return of training however with limited restrictions.

|                    | May 2020     |                              |   |  |  |
|--------------------|--------------|------------------------------|---|--|--|
|                    | Hybrid Grass | Hybrid Grass   Natural Grass |   |  |  |
|                    | Area         | Area                         | Comments                                |  |  |
|                    |              |                              | Return to club training. Couch grass    |  |  |
|                    |              |                              | going into dormancy in front of natural |  |  |
| <b>Grass Cover</b> | 100%         | 100%                         | turf area.                              |  |  |
|                    |              |                              | Slight wear in the middle of the goal   |  |  |
| Levelness          | Excellent    | Excellent                    | mouths.                                 |  |  |
| Hardness           | Normal       | Normal                       |   |  |  |

**July 2020 -** Return to full training during June and game play in July has the areas showing signs of wear and tear.

|                    |              | July 2020                  |  |  |  |
|--------------------|--------------|----------------------------|--|--|--|
|                    | Hybrid Grass | Hybrid Grass Natural Grass |  |  |  |
|                    | Area         | Area                       | Comments                               |  |  |
|                    |              |                            | Mainly wearing on the penalty spot and |  |  |
| <b>Grass Cover</b> | 95%          | 85%                        | goal line.                             |  |  |
|                    |              |                            | Some slight level changes on the worn  |  |  |
| Levelness          | Excellent    | Good                       | areas.                                 |  |  |
| Hardness           | Acceptable   | Acceptable                 |  |  |  |

<sup>\*</sup>Note - Natural turf areas around the Hybrid grass is wearing at a much higher rate and can be clearly seen in the July photo.

**August 2020 -** The season has been condensed into a shorter period that concludes at the end of September. August is really the middle part of the season.

|                    | August 2020  |                      |  |  |
|--------------------|--------------|----------------------|--|--|
|                    | Hybrid Grass | Hybrid Grass Natural |  |  |
|                    | Area         | Grass Area           | Comments                                 |  |
|                    |              |                      | Wear is now becoming even across the     |  |
| <b>Grass Cover</b> | 70%          | 70%                  | areas.                                   |  |
|                    |              |                      | Depression on the goal mouth centre area |  |
| Levelness          | Good         | Good                 | of Hybrid area.                          |  |
|                    |              |                      | Acceptable but starting to get compacted |  |
| Hardness           | Acceptable   | Acceptable           | from high use.                           |  |

**October 2020 -** The season has now concluded. What we have found is with the season finishing later in the year when it gets a bit warmer some of the areas are already recovering.

|                    | October 2020        |            |  |
|--------------------|---------------------|------------|--|
|                    | <b>Hybrid Grass</b> |            |  |
|                    | Area                | Area       | Comments   |
|                    |                     |            | Warmer weather resulting in recovery of areas already. It appears as if the turf is recovering quicker within the Hybrid |
| <b>Grass Cover</b> | 85%                 | 75%        | Turf area.   |
| Levelness          | Good                | Good       |  |
| Hardness           | Acceptable          | Acceptable |  |

# **Photographic Documentation**

























# **Aerial Shots (taken from Nearmap)**











#### Conclusion

Whist its hard to get a distinct result over the shortened period, there is evidence that the Hybrid Turf area has held up better compared to the natural turf area in the other goal mouth.

There is significantly less grass coverage in the turf areas that surround the patch of Hydrid Turf. This can be clearly seen in a few of the photos and is quite clear in the September Aerial shot.

The Hybrid Turf area has certainly provided a much more stable and level surface than the natural grass area as well as the other areas that surround the Hybrid product. The trial will continue to document the recovery period of these areas.