**Greens Drainage 2020**

**Installation of Groundwater Recharge Pumps**

The greens drainage project on the Church course began on Monday this week, 14th September. Over the next six weeks we will be installing energy passive groundwater recharge pumps (EGRP) on the following greens; 3rd 8th 9th 10th 16th 18th

The result of the works will be an improved infiltration rate, as surface water will be able to penetrate the upper levels of thick clay to reach the free draining gravel and chalk deeper in the ground profile. We are aware from an ecological survey that there is free draining chalk approximately 12m beneath surface level.

Below is an overview of the processes that are being completed.

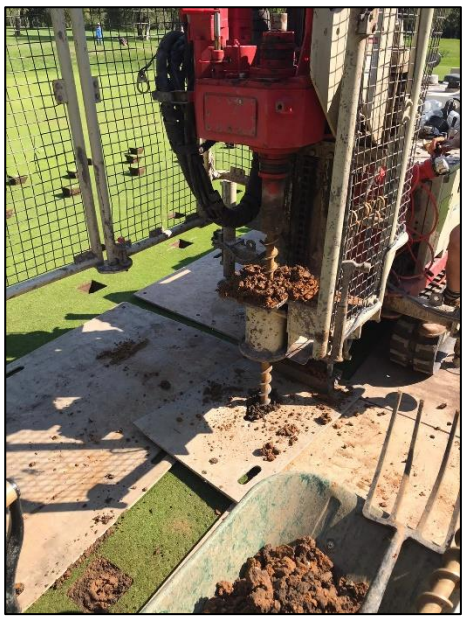
1) Centre lines are positioned and marked out the length of the green, the 8th green pictured below will have 5 centres. Each centre line is 4m apart.


2) The centre line is marked with micro borehole locations 1m apart. Additional drill spots are positioned 0.5m between and perpendicular to the centre line to create a diamond formation.

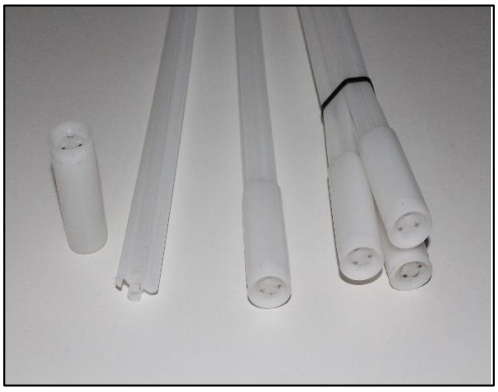
3) The turf is lifted at all drill locations. It is important that we replace the turf squares from the same location from where they were removed. To achieve this we are only cutting the turf from one run at a time, this allows us to easily replace the turf in the same position and also means that each square it is only out of the ground for the shortest possible time. The 8th green will require approximately 374 micro boreholes.

   The turf is cut and lifted at a depth of 200mm.The top of the devices will be positioned at this depth, this will allow us to continue routine practices such as tinning with out risk of damaging the devices.

4) The centre line is drilled at either 6m or 12m depths and the offset drill spots are drilled to 1.5m or 3m. The micro-boreholes required to install the devices are 64-90mm in diameter. The greens surface is protected during drilling by using track mats. Any spoil is removed from the area.



5) The groundwater recharge pumps are capped and inserted into the boreholes, the 1.5m and 3m drills are fitted with a single device and the 6m and 12m holes are fitted with an interlinked set of 3 devices. The devices have a 5-chamber tubular design made from polyethylene. Approximately 1,213metres of EGRP will be installed on the 8th green alone.



6) Once fitted the turf is replaced to cover the device. It will appear similar to what you would see when a hole cup is moved and the previous hole is replaced. Once the whole green iscompleted ]the recovery process will begin. We will complete the following steps to promote recovery;

a. Ironed
b. Brushed
c. Cut
d. Top Dressed
e. Watered in if required

We are planning on one week per green for the work to be completed and then a further week for recovery. Each green will therefore be out of play for 2 weeks in total and at any one time no more than 2 holes should be playing into temporary greens. Any changes to this schedule will be advised to members.

| **Week Commencing** | **Work** | **Recovery** |
|---|---|---|
| 14th September | 8th | - |
| 21st September | 10th | 8th |
| 28th September | 9th | 10th |
| 5th October | 18th | 9th |
| 12th October | 16th | 18th |
| 19th October | 3rd | 18th |

Whilst temporary greens are in use while work is being completed and recovery is taking place the greens are classified as “wrong putting greens” from which relief must be taken. Please also take care when playing into temporary greens whilst the team are working on the main greens.