**Drainage: Information and Advice**

Just as the sun shines for everyone the rain also falls on everyone, and everything. It falls on Sydenham and Dulwich Woods above our allotments, on the allotments themselves and on the playing fields below our site.

We can’t stop the rain falling but we have to do our best to keep rainwater flowing so as to minimise the waterlogging of plots and paths that occurs during the winter months and sometimes well into spring and early summer.

Our neighbours at Gunsite Allotments also have problems with drainage and they commissioned water engineers to survey their site and make recommendations. Much of their advice is applicable to Grange lane and has been adapted to our site in what follows. If you want to read the full report on Gunsite itself click here.

**Analysis of the problem**

* Between October and March average monthly rainfall is usually higher than in other months of the year. Evaporation is also lower in colder temperatures and so standing water on plots and paths is most likely during this period.
* The site is primarily composed of clay which absorbs and holds water and is slow to drain. This leads to waterlogging. Plants immersed in waterlogged soil are killed and the soil becomes compacted and airless. On paths and other trodden areas the ground becomes churned and rutted by boots and barrow wheels. This turns the clay into puddled, slippery, sucking mud which is difficult to walk on and can be dangerous.
* The allotments are on a slope which gets rainwater runoff from the woods. This is intercepted and partially diverted by the lateral ditch which runs roughly east-west along the top of the allotments.
* The rainwater that get past the ditch and which falls directly onto the allotments accumulates on plots and paths where there are natural or created depressions and an absence of drainage to keep the water flowing.
* Water naturally drains down towards the playing fields but it does not actually drain into them, nor is it diverted around them, because a ‘dyke’ to keep the water out has been constructed along the top of the fields. Being unable to drain further the rainwater pools at the bottom of the allotments.

**Outline of solutions**

1. To minimise the quantity of rainwater running into the site by scrupulous protection and maintenance of the lateral ditch across the top of the site..
2. To maximise the quantity of rainwater draining out of the site by modification of the ‘dyke’.
3. To facilitate the flow of rainwater through the site by digging and maintaining ditches on plots and installing pipes under paths as necessary.
4. To strengthen and maintain paths and heavily trafficked area so that they do not become waterlogged and are usable throughout the year

**Implementation of solutions**

1. **Minimising runoff from the woods.**

Organising maintenance and, if necessary, making improvements to the top lateral ditch are the responsibility of the committee. However, it is the responsibility of all plotholders not to block the ditch by depositing anything into it. Infringement of this requirement will be regarded as a serious breach of the rules.

1. **Maximising drainage from the site.**

The ‘dyke’ constructed to protect the playing fields is the chief cause of waterlogging at the bottom of the site. It is not within our direct control to effect any improvement in the situation but the committee has raised the matter with Dulwich Estates.

1. **Improving and maintaining plot drainage**

It is the responsibility of plot holders to maximise the flow of rainwater through their plot by means of the following:

* Digging and maintaining ditches on all sides of plots where rainwater flow and/or waterlogging and/or pooling is evident.
* Minimising waterlogging on paths designated as the plot holder’s responsibility (those at the bottom and on the right hand side facing down the site) by ensuring that:
	+ the full width of the path is preserved or restored if it has been narrowed by planting, overgrowth or structures.
	+ the ground level of the paths is higher than the plot or plot ditches.
	+ obtaining advice from line managers if drainage pipes need to be installed under paths so that rainwater is channelled down to the plot below
* Advising the Committee of any severe drainage problems which cannot be controlled by the above.
1. **Strengthening and maintaining paths and heavily trafficked areas**

Implementation of the measures outlined above will mitigate waterlogging of paths but junction of paths and those that are heavily used will still be vulnerable to churning and rutting. To mitigate this the committee will take responsibility for:

* organising working parties to repair and raise low areas using wood chip, sand and other materials that will aid surface drainage and not interfere with mowing.
* trialling plastic reinforcement mesh to hold and bind the grass on paths so as to prevent disintegration when wet.
* temporarily closing paths that suffer severe waterlogging, churning and rutting in order to prevent further damage.

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