

# Green Thoughts

*Conversations and ideas about growing at The Spring Gardens*

Mid-May we are doing more planting than harvesting. Earlier we were inhibited from sowing by regular soaking rains and the memory of late frosts, especially two years ago. Before sowing, people had to ready their plots. Some cleared out everything that looked like weeds and/or

*Predictions;  
1/f noise*

detritus from the year past. Eventually that led to flat bare plots ready to accept the first rows of seed. The rows were protected by salt hay. Many

*Word of the day:  
piping*

people added bags of extra topsoil. One gardener said it was necessary because the soil in the plot was lacking nutrients. Even if that were so, wouldn't plants still grow? And wouldn't it be easier to just add some fertilizer instead of schlepping bags of topsoil?

Many gardeners cleared out their plots by bagging the weeds and detritus and taking the bags away. Much better, they could have chopped up the debris and left it in an obscure spot in their plot. You probably know the prejudices of curmudgeonly Green Thoughts: leave the stuff, cover it with soil so it composts and soon yields great organic material. Lots of it. The alternative of removing the stuff results in a minimalist esthetic of neatness. Hm. Or is it ugh?

## Reaping already

Some of our fellow gardeners have been harvesting already. Spinach, lettuce and bok choy, all planted late fall (mid to late November), survived winter frosts and snow and grew readily as soon as there were days above freezing. These crops are early, tasty and bug-free.

Strawberry plants were permitted to spread out during the 2021 growing season. They too survive winters. Now in May the strawberry plants have flowered, and set fruit. We let 2 and 3 year olds, with a little guidance, pick the ripe strawberries and eat them on the spot. Kids and strawberries are a natural combination and quite magical. Above right berries in plot. Below 1 day's yield (4 pints)





We have also started harvesting snow pea pods whose seeds we germinated indoors in mid-February:



### **Deadlines**

There is something to be said for having a deadline to encourage people in the spring to start gardening in their plots. Some gardeners wait and wait. Only the sword of Damocles hovering over them (assisted by the Plot Committee) with the threat of having their plots confiscated for lack of any activity, gets them in motion. Once they get going they are energized and realize how lucky they are to have a plot with close to full sun in this urban setting.....

### **When to plant tomatoes**

Once bitten twice shy. This year most people delayed planting their tomatoes (although fellow gardener Jerry got in his first tomato and pepper plants before May (above right). Most waited past the time of the average last frost, and even later, past Mother's Day. You can't blame them. Until 2 years ago people started planting tomato plants in mid-April

and some were starting to plant even earlier. But then that late frost hit in 2020. It is interesting to watch how people and other animals make predictions. There was once a study on pigeons. They were trained by a machine to tap on a key in a certain pattern. If correct, the machine would dispense a food morsel reward. If a pigeon happened to have tilted its head when it was first rewarded, it would tend to tilt its head in subsequent tests even though head tilting had nothing to do with getting rewarded. It was suggested that pigeons were showing superstition.

But so do we. Given that the last frost of the season varies so much from year to year, how do we decide when to plant tomatoes? We use something called  $1/f$  (one over  $f$ ) noise to make our predictions. It goes something like this. Let's say it is raining. Without looking at the Weather Channel or Doppler radar, we can predict that if it is raining now, it will still be raining 30 minutes from now. Only if we look much further ahead, will we predict it

will stop raining. Similarly, if we had a very late spring frost in one year, we will predict that next year we also have a late frost even if that one late frost year was an anomaly. Over several years and with the absence of late frosts we will revert back to planting our tomatoes earlier and earlier. We are superstitious in just the same way as pigeons. Only we don't tilt our heads.

As we mentioned, there are brave ones among us like fellow gardener Jerry who put in a few tomato and pepper plants towards the end of April. Will Jerry's early start lead to earlier tomatoes and peppers? We'll let you know.

laid out from the Wallace St. entrance to accommodate the handicapped.



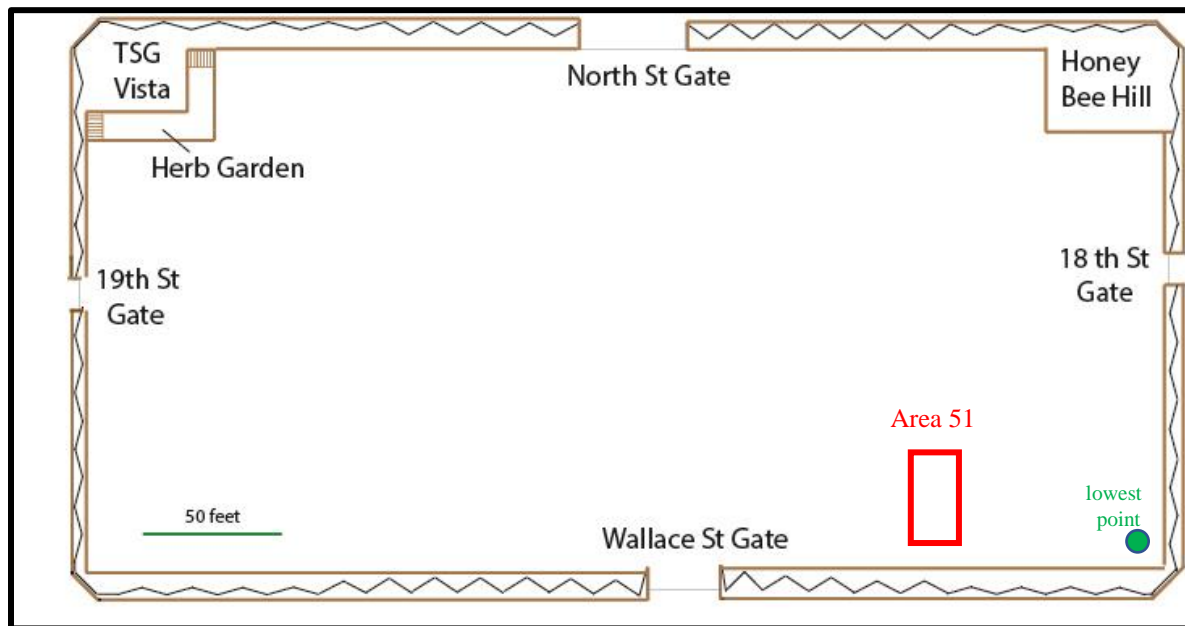
### **The new east west paths**

They are very impressive. And should be weed free and mud free for years to come. Here is how contractor Con and his crew did the work: After digging the deep trenches to accommodate new water lines and the new "hydrants", the trenches were filled in and flattened. In spots there was some mild subsidence they were easily levelled with additional soil. The plots along the paths were lined with new oak retaining boards about 1.5 inches x 10 inches x 10 feet. Coarse rock was laid out on the paths. On top of the rock was placed an impermeable plastic cloth (top right). and on top of the cloth a plastic honey comb, (bottom right, laid out on grass) about 3 inches tall, was placed over the cloth. The honeycomb was over-filled with stone fines creating a very comfortable stone foot path. An additional north south foot path was



### **Subsidence**

Are we ever going to be finished with this subsidence issue? Not as long as parts of our community garden continue to sink. Especially when plot holders in the northwest and southeast parts of TSG must add more soil to their plots to replace the earth that is disappearing.



The Spring Gardens map with location of area 51. Corrugated lines show the cast iron fence around the periphery

Let's concentrate on a particular area of the gardens near the southeast corner. We'll call it Area 51, to give it an air of mystery. Area 51 (see photo and map location above) is 20 feet wide west to east and 40 feet long north to south. It is about 50 feet from 18<sup>th</sup> St and near Wallace St. Area 51 and land to the east and northeast has been sinking for many years. The lowest spot of southeast TSG is not in Area 51 but in the corner ("lowest point"). Plot holders in area 51 were asked to move to unoccupied plots nearby. In the last issue we described how Con the contractor dug a rectangular hole down about 4 feet in one spot of area 51 and discovered a

horizontal slab of concrete about 4 feet below the surface. There was consensus that that was the floor of a basement of a house that was once in that spot about 30 years before. In consultation with Russ Troyer, Con refilled the hole and flattened the whole of area 51 ending with topsoil on the surface. According to Russ, Con then "ran his compactor over that entire area and dropped it down nearly a foot. No material was removed from the target area just compacted." Russ then summed up what happened:

*"In the target area we have: rather dramatic subsidence prior to remediation effort. Excavation revealed loose, random brick*

*rubble that could not maintain a vertical exposed side but would slump inward to form a crater. This was characteristic throughout the area and quite distinct from a vertical sided hole/trench that can be cut into undisturbed.”*

*“The entire target area [area 51] was able to be compacted in the neighborhood of another 20%. It shows conclusively the subsidence that was visible at the start had occurred just to the depth of fill above that floor. Con continued on with attempting to compact the entire target area and succeeded in dropping the ground surface nearly a foot. That means that machine compaction has the very real possibility of eliminating or dramatically reducing the issue. We just need to figure out the best way of approaching that endeavor.”*

### **So is that the solution?**

If we understand Russ’s argument, he believes that compaction is the cause of TSG subsidence. If the land that is subsiding is really tamped down then there will be no subsequent subsidence. All that has to be done is figure out a “best way” to do the compaction. End of story.

We hope it is so. But the land, the whole southeast area, not just where there were basements, has been sinking for more than 25 years. Where is all that stuff going? Is it more compacted now than it was 25 years ago? Is the subsidence slowing down? Why is the land most sunk in the extreme southeast corner, not in Area 51?

These compaction processes take time but if more than 25 years is needed and it still has to be machine compacted isn’t there something incomplete with a compaction explanation?

### **Word of the day - piping**

Meanwhile I spoke again to my brother-in-law Len who is a civil engineer, and a licensed P.E. He was the president of an engineering company that designed and built large port facilities for moving bulk materials. The land in a port area sometimes sinks and has to be remediated. Just recently the UK’s largest and newest container ship port, a £400m facility, in Felixstowe, southern England, suffered subsidence and a subsequent sink hole. It is not uncommon.

Len has looked at the subsidence at The Spring Gardens and said that given the time that has passed and the extent of the subsidence there is probably “piping” at the root cause.

Piping? What’s that? Here is the technical definition:

### **Piping**

“A subsurface form of erosion which involves the removal of subsurface soils in pipe-like erosional channels to a free or escape exit...Although it develops in different types of soils and under a wide range of physico-chemical conditions, piping materials are commonly highly erodible.”

This sound like the land at The Spring Gardens. It is linked to underground stream beds described in previous issues of Green Thoughts. The stream beds can act as escape exits toward the Schuylkill. They are oriented in a roughly northeast to southwest

direction. When the beds have water flowing through them they can carry away lots of earth.

I asked Len how we can prove whether TSG subsidence is due to compaction or piping.

“Wait till next year,” he said. Or the year after that...

Please send your ideas, thoughts, suggestions and observations to:  
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that address can also be used for getting on the mailing list for **Green Thoughts**, or getting off.

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radishes picked 23 May 2022