

**SHREWSBURY TOWN COUNCIL
CLIMATE CHANGE STANDING COMMITTEE
7 October 2021**

Officer: Gary Farmer – Head of Operations

CLIMATE CHANGE – IMPACT ON GROUNDS MAINTENANCE

Purpose of Report

To receive a report on how the grounds maintenance operations are impacted by Climate Change.

Introduction

This report has been prepared to highlight the impacts of climate change seen locally in the management of the Council's estate.

In 2009 at the time of local Government reorganisation staff were working with quite defined Spring, Summer, Autumn, Winter seasons with various jobs assigned to those specific seasons.

Grass cutting was without exception undertaken from the 1st April – 30th September, with shrub Bed maintenance and Tree maintenance scheduled into the Autumn & Winter months where ground conditions were hard enough to access sites.

In the 10-year period since, the make-up of the seasons has changed from a horticultural maintenance point of view, with unexpected periods of excessively hot or cold together with prolonged periods of drought or rain having a significant impact on plant growth, flowering and tree seasons.

At times this has placed significant strain on being able to maintain the estate in terms of impact on staff, changes to planting conditions, excessive use of machinery.

Both the Recreation & Leisure Committee and the Climate Change Committee need to keep a conscious eye on these issues over the coming years.

To help provide input the team Managers have provided a summary of how their areas of work have been impacted by climatic changes.

Impact on Countryside Areas – Countryside & Greenspace Team Manager

Grass Growth

Highly unpredictable patterns in grass growth due to long spells of drought or rain over the cutting season. During May, this resulted in complaints and public insisting that we had not cut the grass all year, when we were in fact on schedule with no operatives on holiday or off sick. Some areas then needed cutting with flails as the batwings were unable to cut them due to how thick the grass had become. Then in August, there was very little growth at all.

The growing season is extending, sometimes as late as October. As the mowing operatives traditionally move onto other essential jobs from October 1st, such as tree work and hedge cutting, continuing mowing into the autumn months will have a major impact on our ability to complete other tasks.

The varying geological conditions across the town also impact greatly on where areas can/can't be cut. The eastern side of the town has a large clay core, whilst the west is more porous. It is therefore not unusual to have cut areas of Radbrook and Meole three times in the spring before places in Sundorne and Battlefield.

Ground Conditions

Ground conditions during winter have made it impossible to complete a number of tree jobs. Work using MEWPs and tractors on rec grounds/parks used to be held until we had a prolonged cold spell and deep frozen ground in the middle of the winter, which prevented rutting and equipment getting stuck on site. We are now rarely getting frozen ground conditions at all during the winter, with warmer, rainy winters meaning the ground remains saturated for many months.

We are seeing an increase in expenditure on repair jobs due to land slip, wash out, and erosion as a result of extreme rainfall events

Tree Stress

Erratic climate conditions are beginning to have an impact on tree stock especially with sudden changes in very short periods. This summer three large mature trees that have previously not shown signs of stress have either completely toppled over or have lost significant limbs. As conditions change further and the Council's tree stock matures further, more inspections will be required.

Staffing

We have had staff absent with headaches and other minor illness symptoms following days of extreme heat. Many of our operatives work on uncovered ride on machinery for whole days, and whilst they wear hats and sun protection, the heat from the engine means that they sit in air several degrees more than the ambient temperature.

Pests & Diseases

We are seeing more pests and diseases affecting trees due to warmer climate. There are many species of invertebrate pests and carriers which could not survive in the UK previously, but are now settling further north each year. Many of our trees are not resilient to these pests due lack of exposure, so may be hit harder than the same species living in more southern countries. Coupled with other stresses such as drought and flooding occurring more frequently, this is taking a toll on their survival.

Impact on Recreational Areas – Formal Recreational Space Team Manager

Grass Growth

Longer cutting season, we are now cutting right up to Christmas and depending on ground conditions sometimes through January and February.

Ground Conditions

The need to aerate more, to get the rain into the soil profile and stop large amounts of run off.

Fine turf requires irrigation during hot dry periods.

Wetter winter months, more damage to winter games pitches and having to do more renovation work.

Timing of work patterns more difficult, wet ground have to keep machinery off, long hot periods – whether we cut or not to protect the sward but can cause complaints from users.

Staffing

Effect on staff and machinery, working in extremes of weather and conditions (wet, dust, heat).

Usage

More usage, fewer matches called off during summer months, more people out and about, litter, anti-social behaviour problems.

Impact on Amenity Areas – Amenity Space Team Manager

Seasonal Planting

Over the last few years there have been significant changes to temperature at the time of bedding out in June. Exceptionally cold weather can stunt the growth of new plants and it takes a considerable time to encourage their growth. Equally there have been occasions where planting has been carried out in June in 30 degree heat. Whilst plants are soaked ahead of planting, the heat and dryness of the surrounding soil has sucked all moisture out of the plant and its surrounding growing medium. Watering has been a necessity to avoid wilt.

Planters & Hanging Baskets

Over the years the Council and Bloom Group have invested in containers and hanging baskets that have internal reservoirs that provide the plants with water using a capillary function. These planters have greatly reduced the need for daily watering. The majority of these containers are plastic in their construction (and many are from recycled plastic) but in extremely high temperatures that plastic becomes exceptionally hot and the water contained has been near to boiling point, thus damaging the plants.

Choice of Plants

Grounds staff have now taken to experimenting with more sustainable and drought tolerant plants in areas that would have previously had annual floral bedding. Every year staff review the success or otherwise of every planting arrangements to ensure optimum floral benefit.

Treestock

In areas like the Quarry, the presence of deadwood within the mature trees that not only line the avenues but are also present in the Dingle is significant. Due to the extremely high footfall this needs to be managed carefully.

Impact on Logistics – Logistics Team Manager

Play

Climatic conditions have affected play facilities. Areas with strong use of tarmac and steel equipment have seen excessively high touch temperatures with the potential for users to face burns. Some play areas are susceptible to flooding, with places like the Quarry and County Ground seeing facilities underwater for longer periods, which ultimately impacts on the levels of cleansing once river levels have receded.

Roadside Hedgecutting

Traditionally hedges have been cut once the nesting season is over in August until October/November. Excessive growth has seen hedges needing cutting as a matter of urgency much earlier and the volume of growth has meant that cutting has extended into December.

Machinery Maintenance

Changes to growing conditions has had an impact on the level of ongoing repairs, the amount of fuel used and the need to replace machinery far quicker than previously. The Mechanic and Projects Manager regularly keep a track on market trends for Grounds Maintenance Machinery and now annually visit Saltex the biggest sector exhibition.

Winter Maintenance & Flooding

Over the last few years the need to support Shropshire Council in the management of the public realm during excessive climatic episodes has become evident. Grounds Staff have had to support both Highway and Footpath Clearance during severe periods of snow and ice and more recently in 2020 staff had to take their turn manning road closures to keep the public safe from flooded carriageways.

Where routine Town Council work cannot be achieved due to flooding and Snow, staff have been seconded to support Highways Engineers. Shropshire Council has always paid for staff to work outside core hours and purchased equipment to support such maintenance regimes.

Conclusion

Both the Recreation & Leisure Committee and the Climate Emergency Committee need to continue to have sight on how climate change impacts on the Council's operations. Areas may include:

- Looking at changing grass cutting regimes in places
- Increased tree inspections and major tree works in prime locations
- Maintaining the best equipment to meet the needs of the service
- Changing plant choices and even in very traditional areas
- Changing hours of operation so that staff work outside high temperatures
- Encourage greater community resilience to support work locally

RECOMMENDATIONS:

- (i) That the report be noted.