

## **CLEANER OVERVIEW AND SCRUTINY COMMITTEE**

**14 November 2018**

### **REVIEW OF THE CURRENT POLICY ON THE USE OF GLYPHOSATE**

*Report Submitted by: Andrew Osborne, Group Leader, Environment and Streetscene*

*Report Written by: Andrew Osborne, Group Leader, Environment and Streetscene*

#### **Report Summary**

Cleaner Scrutiny Committee has asked for a review of the use of glyphosate and the consideration of alternatives, following concerns expressed by members of the public and Torfaen Friends of the Earth.

A review of glyphosate use in Torfaen has been undertaken, highlighting what it is, why it is needed and how it is used across the borough. The review considers the risks to people and wildlife in light of legislation and guidance from Defra and Welsh Government, other weed control options, the response taken by other local authorities and our options for the future.

Glyphosate based pesticides are widely used as weed killers, and glyphosate is one of the few chemicals remaining approved for use. There has been lots of debate and lobbying about its safety, but it has been approved for continued use and has all the required certificates for use in the UK. However some members of the public and experts are concerned about its safety, being concerned about harm to people and wildlife.

Alternative weed control mechanisms are used for hard surfaces, but their use is not widespread and there is general consensus that glyphosate use should be minimised where possible. Glyphosate provides the only effective treatment for Japanese Knotweed.

This report recommends that we should continue to use glyphosate to treat Japanese Knotweed and to control weeds on hard surfaces, but we should look to minimise the number of applications and quantity applied by prioritising areas of greatest need and using the latest application technology.

#### **1. Introduction and Scrutiny Activity**

- 1.1 Cleaner Scrutiny Committee has asked for a review of the use of glyphosate and the consideration of alternatives, following concerns expressed by members of the public and Torfaen Friends of the Earth.
- 1.2 Members are invited to consider the information contained in this report to assess whether the review carried out has provided enough information for members to give a view on the future use of glyphosate by the Council. In doing this, Members are invited to make clear comments or recommendations to the relevant Executive Members and / or Chief Officers regarding its future use or possible alternatives if appropriate.

1.3 Glyphosate is a systemic, broad-spectrum herbicide. This means that it is non-selective in what it kills, and moves throughout plants it touches killing all parts. It is a widely used chemical for the control of weeds (where a weed is defined as a plant growing where it isn't wanted). The Council uses it to control weeds on hard surfaces and to eradicate Japanese Knotweed.

1.4 The review has involved the following activity:

- Assessment of whether we need to control weeds in urban areas.
- Examination of glyphosate, the Council's current use of it and our application methods.
- Research on current thinking regarding the safety of glyphosate use.
- Review of its use by other local authorities.
- Examination of possible alternative weed control treatments and their effectiveness.
- Torfaen County Borough Council options for the future.

Reference has been made to several guidance and research documents, including Best Practice Guidance Notes for Integrated and Non-Chemical Amenity hard Surface Weed Control by Defra <http://www.emr.ac.uk/wp-content/uploads/2015/03/BPWeeds2015web1.pdf> and a Welsh Government Glyphosate Information Note 2018 (**Appendix 2**).

Members are asked to consider the findings of the review and scrutinise options for the future.

## **2. Information/Results**

### **2.1 Assessment of whether we need to control weeds in urban areas.**

2.1.1 Local authorities and land managers have a duty of care to the public, including ensuring weeds do not pose a hazard. Untreated weeds in hard paved surfaces may create a trip hazard. However if health and safety is the reason, consideration should be given to the level of risk in assessing whether to continue to treat weeds. In reality, the number of accident claims received by the Council due to weeds is likely to be low or non-existent, but to date we have kept weed growth to a minimum by annual treatment, so this is not surprising.

2.1.2 Traditionally the general public expects the Council to minimise the presence of weeds on hard surfaces to minimise any trip hazards and maintain an aesthetically pleasing environment, although perceptions of what is aesthetically pleasing is subjective, and maintaining areas clear of weeds has a negative impact on biodiversity. Therefore Members may wish to consider the treatment of weeds as a necessity purely for safety reasons, which means that widespread weed control is reduced and confined to deep rooted annuals and perennial weeds.

2.1.3 Apart from any health and safety issues, Local Members do sometimes receive complaints about areas being 'untidy' because weeds are present. The weed growth may not necessarily be posing any danger or nuisance, but traditional public perception is that the presence of weeds indicates lack of care by the Council rather than an intention to minimise chemical use or support biodiversity.

## 2.2 Examination of Glyphosate, its Current Use in Torfaen and Application Methods?

2.2.1 Glyphosate is the most widely used post-emergence herbicide for several reasons:

- First and foremost, it is effective. Glyphosate is a systemic (translocated) herbicide that moves from the treated foliage to other plant parts, including the roots. In this way, glyphosate kills annual and perennial weeds.
- Glyphosate is non-selective. This means a single herbicide can be used to control most weeds – grasses, sedges and broadleaves.
- Glyphosate has little or no soil residual. It is rapidly bound by clay particles in the soil rendering it inactive.
- Glyphosate is relatively inexpensive – compared to other herbicides.
- Until recently, it has been considered to be one of the least toxic and environmentally benign herbicides in use.

The Council uses glyphosate for two separate purposes:

### 2.2.2 Weed Control on Hard Surfaces

In Torfaen glyphosate is currently specified for the eradication of weeds on hard surfaces as part of the carriageway maintenance programme, and delivered under external contract, normally in a joint arrangement between the Council and Bron Afon Community Housing. Managing weeds at an early stage helps maintain the integrity of footpaths and thereby reduces maintenance costs. The procurement approach involves a tender process and submission of appropriate method statements for the application of glyphosate, certificates of competence and insurance details by tenderers, relating to pesticide application.

To minimise the quantity of glyphosate being applied, the contractor uses a state of the art application system called WEEDit <https://www.weed-it.com/principle>. In simple terms, this scans the ground emitting infra-red light to detect plant life. Plants reflect this light back to the sensors activating spray nozzles to spray a precise quantity of chemical only onto the detected weed. This avoids contamination of the wider bare ground, drains and minimises wasted chemical.

The contractor will normally apply glyphosate to hard surfaces (pavements) during the Spring when weeds are growing rapidly. A return visit is made for any areas that were missed during the original application. During 2017, glyphosate was applied at a cost of £14.00 per km (0.014 pence per linear metre) of pavement and gutter, with two applications per annum (April and August). The total cost for Torfaen within the wider contract for the Council and Bron Afon was £36,000 (18,000 plus £18,000).

### Control of Japanese Knotweed

Apart from the extremely costly and often impractical method of deep excavation and burial, the application of glyphosate herbicide is probably the only cost effective method of treating Japanese Knotweed. In the largest field trials of their kind ever undertaken worldwide, research by Swansea University examined the physical and chemical control of Japanese knotweed. The studies found that although no control treatment delivered complete eradication of Japanese knotweed, glyphosate applied at an appropriate dose, plant development stage and level of coverage was found to be the most effective control treatment. They made a recommendation for stakeholders to discontinue the use of other widely used herbicides for control of Japanese knotweed and unnecessary physical control methods that add equipment and labour costs and increase environmental impacts, without improving control compared to spraying alone. <https://cronfa.swan.ac.uk/Record/cronfa39021> As a result, Torfaen County Borough Council uses it to treat Japanese Knotweed on Council land. It is applied using a traditional knapsack sprayer methodology by our own certificated staff.

Trials have shown the most effective approach is a single glyphosate spray during late Summer and early Autumn before the first frost. If applied correctly the Knotweed will be significantly reduced in the next season, with the remainder being treated again at a similar time of year. One or two repeat treatments may be required to eradicate small shoots, but the areas require annual monitoring to prevent a recurrence of these which could subsequently re-colonise large areas. Using this approach, in some parts of the borough we have succeeded in eradicating up to 90% of Knotweed stands.

## **2.3 Safety Concerns about Glyphosate Use**

- 2.3.1 Recently the toxicity and environmental safety of glyphosate has been questioned. In 2015, the International Agency for Research on Cancer (IARC), a branch of the World Health Organization, stated that glyphosate is “probably carcinogenic”, having reviewed the evidence.
- 2.3.2 Earlier this year, leading glyphosate manufacturer Monsanto lost a landmark cancer trial in San Francisco and was ordered by the Judge to pay over \$289 Million in total damages to a former school groundskeeper Dewayne Johnson, a California father who has non-Hodgkin’s lymphoma, which was deemed to have been caused by Monsanto’s glyphosate-based weedkiller Roundup.
- 2.2.3 However separate reviews of glyphosate’s safety by the European food Safety Authority <https://www.efsa.europa.eu/en/efsajournal/pub/4302> The European Chemicals Agency <https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa> and the US Environmental Protection agency found no increased risk of cancer <https://www.epa.gov/pesticides/epa-releases-draft-risk-assessments-glyphosate>
- 2.2.4 In November 2017, the European Union re-approved the continuing use of glyphosate from 16 December 2017. Reviews of the scientific data by the European Food Safety Authority (EFSA) and the European Chemicals Agency’s Committee for Risk Assessment have found no safety concerns that would prevent continuing approval, and UK scientists agree with this assessment. The new approval lasts until 15 December 2022; use beyond that date would be subject to a further decision. (Welsh Government Glyphosate Information Note

2018 **Appendix 2**).

## **2.4 Effect of Glyphosate on Biodiversity**

- 2.4.1 Very little research appears to have been done to check whether glyphosate is safe to animals at the levels it is normally used as a herbicide. However a new study demonstrates what some researchers have suspected: glyphosate *may* harm animals indirectly by killing their resident microbes. The study found that bees rely on a specialized gut microbiota that benefit growth and provides defence against pathogens. Exposing bees to glyphosate alters the bee gut community and increases susceptibility to infection by opportunistic pathogens. Glyphosate perturbs the gut microbiota of honey bees (Erick V. S. Motta, Kasie Raymann, and Nancy A. Moran) <http://www.pnas.org/content/early/2018/09/18/1803880115>

## **2.5 Welsh Government Position**

- 2.5.1 Clearly there are conflicting views but in light of the concerns, the Welsh Local Government Association (WLGA) asked the Welsh Government for guidance on the future use of glyphosate. As a result, the Welsh Government, recently issued an information note stating that all pesticide products available in the UK have to meet strict regulatory standards to ensure they do not pose a threat to human or animal health and the environment. The regulatory authorities undertake ongoing scientific research to make sure such chemicals are safe to use and have no long-lasting effect on the environment (**Appendix 2**).

## **2.6 Review of Glyphosate use by other Local Authorities**

- 2.6.1 The WLGA has asked all Welsh local authorities about their use of glyphosate, particularly if they are using it, have there been concerns from the public and are they considering alternatives. 13 of the 22 authorities responded confirming that they do use glyphosate, but concerns had been raised prompting them to revise their approach to reduce the amount of chemical being used. Most had looked at alternatives but were concerned about the effectiveness of them and additional cost implications.
- 2.6.2 Some authorities in England have adopted pesticide free status and use alternative methodologies for weed control. Examples include Glastonbury Town Council, Lewes, Hammersmith and Fulham, and many others that have active campaigns ongoing to ban pesticides. These are recent developments and we await further information in terms of their success and financial impact.

## **2.7 Possible Alternative Weed Control Treatments and their Effectiveness**

### **2.7.1 Urban Design and Planning - Designing Out the Need for Weed Control**

Many weed problems can be addressed or minimised at the design stage and with long-term maintenance. The majority of weed problems occur on hard surfaces at cracks or joints in the surface where there is a build-up of detritus which provides a substrate for weed seeds to germinate. Appropriate surfacing to minimise cracks should be a consideration for urban designers, although the whole life costs should be examined taking account of implementation and long term management.

### 2.7.2 Hand weeding

Hand weeding is labour intensive and estimated to cost over 30 pence per square metre so is unlikely to be a viable option due to the cost.

### 2.7.3 Hot Water and Hot Foam

Hot foam and hot water systems kill plants using heat, and can be used in all weather conditions. This gives them a major advantage over chemical herbicides which can only be sprayed under ideal weather conditions. Hot foam uses less water so has an advantage over hot water harnessing the power of thermal technology, killing weeds using the precise application of hot water and a biodegradable, environmentally-friendly foam made from natural plant oils and sugars. In addition to weed control, it can be used for all manner of street cleaning tasks, including gum removal, and has the following advantages:

- It visibly kills weeds within minutes.
- It is approved for organic use by multiple certification bodies across the UK, Europe and the USA, and contains no harmful ingredients.
- It is safe for unrestricted use around people, animals and in sensitive environments.
- It can be applied in all weather conditions, allowing for better labour resource allocation and helping to avoid downtime.
- It is easy to apply and requires no specialist training or on-going certification, unlike traditional herbicide.

To kill deeper weeds 3 – 4 applications per season may be required which could make the approach less economically viable. Based on research it would appear that each application is likely to cost in the region of 0.2 pence per square metre with two applications required. Comparisons with the cost of glyphosate costed at 0.014p per linear metre isn't easy, as we pay per linear metre for that, rather than per square metre. However as most pavement surfaces are at least a metre wide, it is clear that hot water and foam will be significantly more expensive per application than glyphosate.

### 2.7.4 Acetic Acid (Horticultural Vinegar)

Acetic acid will kill any plant by absorbing moisture from the leaves and quickly kills and shrivels the weed. It is non selective and will kill every plant it touches. Acetic Acid is a contact only weed killer, meaning it will only kill the parts of the plant it touches and may not work on deep rooted weeds which can simply regenerate from deep underground.

In terms of safe use, higher concentrations of acetic acid can be extremely dangerous.

Benefits of vinegar vs commercial weed killers

- It's relatively cheap and readily available.
- Can work very quickly, sometimes taking as little as a couple of hours to eliminate small weeds.
- Once sprayed it isn't likely to be harmful to the environment, your pets or your children.
- Kills most garden weeds in one application.
- No need to exclude kids or pets from the area.
- Can be used in areas with edible crops.

What are the disadvantages of using vinegar

- Higher acidity means much more danger.
- May not kill deep rooted or larger weeds.
- Isn't as effective as chemical weed killers. Weeds can re-appear within a month, whereas sites treated with glyphosate can remain weed free for five to six months.
- Cannot be used on lawns.
- Vinegar is acidic so overuse can quickly alter soil PH causing damage and prevent future growth.

We have not been able to determine the cost of treating weeds with Acetic Acid, and the uncertainty in terms of potential soil damage is a concern.

#### 2.7.5 An Integrated Approach

This approach uses non-chemical techniques to suppress weeds, with minimal use of herbicides. The treatment timing is determined by regular weed monitoring. The frequency of treatments is likely to be increased to that of chemical only treatments. The use of herbicides is used primarily to target persistent and inaccessible weeds. Tap rooted weeds treated with mechanical or thermal methods can re-emerge after approximately 2 weeks. Therefore, in an integrated approach, spot treating weeds with a herbicide at the end of the growing season can be used. Rotating control methods is likely to improve control and reduce herbicide resistance. Defra <http://www.emr.ac.uk/wp-content/uploads/2015/03/BPWeeds2015web1.pdf>

We do not have a cost estimate for the integrated approach, but it is likely to be somewhere between the cost of the glyphosate and the non-chemical methods.

### **3. Discussion on Options for the Future**

3.1 Glyphosate as a weed control has proven to be very effective. The European Union has re-approved its continued use and the European Food Safety Authority (EFSA) and the European Chemicals Agency's Committee for Risk Assessment have found no safety concerns that would prevent continuing approval, which UK scientists agree with. However Defra and Welsh Government recommend minimising the quantity of glyphosate used to minimise any effects on people, wildlife, plants and environment while making sure pests, diseases and weeds are effectively controlled.

3.2 Many experts remain concerned about its safety, and some studies have indicated a link between glyphosate and the ability of bees exposed to it, to survive

pathogenic infections.

- 3.3 Various alternative non-chemical control methodologies for hard surfaces have been examined, but none have so far proved to be as effective as glyphosate particularly on deep rooted perennial weeds, and they are also more costly to apply. Additionally, glyphosate application remains the only effective treatment for Japanese knotweed.
- 3.4 As a result few local authorities have stopped using glyphosate. Instead many have sought to adopt a minimisation approach. Indeed the approach currently adopted in Torfaen utilises the latest WEEDit technology to minimise the amount of glyphosate being applied. The effective control of Japanese Knotweed has proved to be possible with a single application of Glyphosate during late Summer/Autumn rather than multiple applications at other times of the year.
- 3.5 Defra guidance suggests adopting a prioritisation strategy and using contractors that are members of the Amenity Forum. Different hard surface materials require different programmes of weed control. By having areas zoned, problem locations can receive more targeted treatments with more regular monitoring, and areas with fewer weed pressures could receive fewer treatments, making the best use of resources. This would reduce the amount of glyphosate used in Torfaen.
- 3.6 In accordance with the guidance, to minimise glyphosate use we would continue to specify the WEEDit methodology in any future contract. Additionally, a weed control contract for 2019 and beyond, could prioritise annual treatment in those areas where weeds are most prevalent, with areas that have less weeds being treated every two years. However Members would need to realise that those areas which had a 2 year weed reduction cycle may lead to an increase in complaints and a perception that the Council is not maintaining the local environment. To obtain the best value for money, a longer term contract is recommended, but any contract should not last more than four seasons as the current glyphosate approval lasts until 15 December 2022. Having said this, we need continue to gather evidence on the safety of glyphosate which could lead to changes in our approach. We therefore need to reserve the right to amend or end the contract early in response to any further evidence being obtained or changes in legislation.
- 3.7 Given the high profile that glyphosate currently has as a result of the Dewayne Johnson case and concerns about its impact on pollinators, the Council will need to closely monitor ongoing research regarding the safety of glyphosate, and be ready to modify our approach according to any legislative changes.

#### **4. Implications**

- 4.1 Policy – If members decide to continue with the existing approach but place greater focus on minimising the quantity of glyphosate applied there will be no change of policy. If members wish to adopt a non-chemical approach to tackle weeds on hard surfaces, this is likely to have significant budget implications, and communities will probably need to accept the presence of weeds in some areas providing they don't pose a health and safety risk. As glyphosate is the only cost effective way to treat Japanese knotweed, the existing approach to treating Knotweed should continue.

- 4.2 Well Being of Future Generations Act - A well-being assessment is attached **(Appendix 1)**.
- 4.3 Social Inclusion and Equalities – Irrespective of which weed control methodology is adopted, the Council has a duty of care to the public, including ensuring weeds do not pose a hazard or impede use by any sector of society.  
Legal – The Council and its contractors must comply with current legislation in the use of pesticides.
- 4.4 Financial – During 2018/19 glyphosate was applied to hard surfaces at a cost of 0.014 pence per linear metre, which equated to £36,000 for the whole borough. Non-chemical methods are likely to cost more, although this could be determined by seeking prices for both methods during the tender process.
- 4.5 Human resources – No implications. In house staff will continue to deliver the Japanese knotweed control programme.
- 4.6 Partners and Service Users – We intend to continue our existing partnership and joint procurement arrangement with Bron Afon Community Housing.
- 4.7 Private Sector – The intention is to procure the services of an external contractor to undertake weed control on hard surfaces through open tender.
- 4.8 Crime and Disorder – No implications.
- 4.9 Strategic Risks – The Council has a duty of care to safeguard the public from trip hazards, hence the need for a weed control programme. We also need to control the spread of Japanese Knotweed from Council land into adjoining areas to minimise the risk of claims being made against us.

## **5. Conclusions**

- 5.1 A review of glyphosate use in Torfaen has been undertaken, highlighting what it is, why it is needed and how it is used across the borough. The review considered the risks to people and wildlife in light of legislation and guidance from Defra and Welsh Government, other weed control options, the response taken by other local authorities and our options for the future.
- 5.2 Glyphosate is an approved chemical for use on weeds but national government recommends minimising its use where possible. Some experts and local people are sceptical about its safety and want its use curtailed or minimised.
- 5.3 Alternative control methodologies are not as effective as glyphosate and they are significantly more expensive. It will be possible to check this by inviting quotes for chemical and non-chemical weed control when tenders are invited for 2019 and beyond.
- 5.4 No cost effective alternatives are available to treat Japanese Knotweed which should continue to be done using our in-house staff through a single application of glyphosate during late Summer/early Autumn.

5.5 We intend to invite tenders for glyphosate application on hard surfaces using the latest WEEDit technology to minimise usage, by Christmas 2018. We could also prioritise areas of greatest need, treating them annually and other areas every two years. A four year contract could be let for weed control on hard surfacing, with break clauses giving us an opt-out should legislation change or new evidence come to light.

## 6. **Scrutiny Activity**

6.1 Members are invited to consider the information contained in this report to assess whether the review carried out has provided enough information for members to give a view on the future use of glyphosate by the Council. In doing this, Members are invited to make clear comments or recommendations to the relevant Executive Members and / or Chief Officers regarding its future use or possible alternatives if appropriate. Members might like to consider the following possible options:

- Do Members agree that we should continue to have a policy of treating weeds on hard surfaces to ensure the safety of the public?
- Despite some concerns, given government advice on glyphosate being safe to use, are Members content with the Council continuing to use it to treat weeds on hard surfaces?
- Japanese Knotweed continues to be a major issue and threat in Torfaen with potential economic, environmental and social consequences of not treating it. Are members happy that we continue to treat knotweed with glyphosate minimising the quantity used by using a single application once per year.
- Although it is difficult to make cost comparisons as many organisations are still experimenting with different approaches to treat hard surfaces, it appears that non-chemical weed treatments are likely to be far more costly than using glyphosate. Whilst we cannot compromise environmental protection to reduce costs, we don't have unlimited resources, so consideration should be given to the cost implications of not using glyphosate.
- Should we seek to minimise glyphosate use by prioritising areas of greatest need and using technology to minimise the amount applied? Should we use a single application rather than two per season?
- To keep up to speed on issues related to weed control and to share best practice, the Council could become a member of the Amenity Forum, the national voluntary initiative promoting best practice in all aspects of weed, pest and disease control. Do Members support this?

<b>Appendices</b>	Appendix 1 Well Being Assessment Appendix 2 Welsh Government Glyphosate Information Note 2018
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<b>Background Papers</b>	Best Practice Guidance Notes for Integrated and Non-Chemical Amenity hard Surface Weed Control by Defra <a href="http://www.emr.ac.uk/wp-content/uploads/2015/03/BPWeeds2015web1.pdf">http://www.emr.ac.uk/wp-content/uploads/2015/03/BPWeeds2015web1.pdf</a>  WEEDit Technology <a href="https://www.weed-it.com/principle">https://www.weed-it.com/principle</a>
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Optimising physiochemical control of invasive Japanese knotweed / Daniel Jones; Gareth Bruce; Mike S. Fowler; Rhyan Law-Cooper; Ian Graham; Alan Abel; F. Alayne Street-Perrott; Daniel Eastwood  
<https://cronfa.swan.ac.uk/Record/cronfa39021>

European Food Safety Authority (EFSA) Conclusion on the peer review of the pesticide risk assessment of the active substance glyphosate  
<https://www.efsa.europa.eu/en/efsajournal/pub/4302>

Glyphosate not classified as a carcinogen by European Chemicals Agency (ECHA) 2017 <https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa>

US Environmental Protection Agency Releases Draft Risk Assessments for Glyphosate 2017 <https://www.epa.gov/pesticides/epa-releases-draft-risk-assessments-glyphosate>

Glyphosate perturbs the gut microbiota of honey bees (Erick V. S. Motta, Kasie Raymann, and Nancy A. Moran)  
<http://www.pnas.org/content/early/2018/09/18/1803880115>

Amenity Forum <http://amenityforum.co.uk/>

**For a copy of the background papers or for further information about this report, please telephone:** Andrew Osborne, Group Leader, Environment & Streetscene

## WELL-BEING ASSESSMENT TEMPLATE

**Project Description (key aims):**

**Section 1) Complete the table below to assess how well you have applied the 5 ways of working.**

 <p><b>Integration</b></p>	<p>1. <i>How does your project / activity deliver economic, social, environmental &amp; cultural outcomes together?</i></p> <p>The proposal supports local jobs whilst maintaining a quality environment for the enjoyment of local people, facilitating connections between people in public spaces. It seeks to minimise any potential environmental damage by minimising the quantity of glyphosate applied to hard surfaces.</p>
 <p><b>Long-term</b></p>	<p>2. <i>How does your project / activity balance short-term need with the long-term and planning for the future?</i></p> <p><i>This link may help you with long term planning: <a href="http://www.wlga.gov.uk/sustainable-development/generation-2050-better-long-term-decision-making-l-a-resource-for-local-government">http://www.wlga.gov.uk/sustainable-development/generation-2050-better-long-term-decision-making-l-a-resource-for-local-government</a></i></p> <p>Reference has been made to extensive research and current legislation to ensure compliance with environmental standards to protect the environment for future generations.</p>
 <p><b>Prevention</b></p>	<p>3. <i>How does your project / activity put resources into preventing problems occurring or getting worse?</i></p> <p>The control of weeds on an annual basis prevents large and deep rooted plants becoming established that would be costly to eradicate. It seeks to control and reduce the area of Japanese Knotweed present, thereby voiding future potential claims and growth onto wider areas.</p>
 <p><b>Collaboration</b></p>	<p>4. <i>How does your project / activity involve working together with partners (internal and external) to deliver well-being objectives?</i></p> <p>Weed control on hard surfaces is done through a collaboration with Bron Afon Community Housing, external contractors and cross team working internally between Streetscene, Highways and Ecology. Japanese knotweed control is done in liaison with community and friends groups.</p>
 <p><b>Involvement</b></p>	<p>5. <i>How does your project / activity involve stakeholders with an interest in achieving the well-being goals? How do those stakeholders reflect the diversity of the area?</i></p> <p>We have regular contact with individuals in the community with an interest, and Friends of the Earth.</p>

**Section 2)** Assess how well your project / activity will result in multiple benefits for our communities and contribute to the national well-being goals (use **Appendix 1** to help you).

Description of the Well-being goals	How will your project / activity deliver benefits to our communities under the national well-being goals?	Is there anyway to maximise the benefits or minimise any negative impacts to our communities (and the contribution to the national well-being goals)?
<p><b>A prosperous Wales</b> An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.</p>	<p>The approach supports the employment of direct Council staff and external contractors.</p> <p>It is important to treat Japanese Knotweed to prevent its spread and contamination of adjoining land. There are cases where landowners have incurred liability and had to pay significant compensation where Japanese Knotweed has been proven to spread from their land onto neighbouring property.</p>	
<p><b>A resilient Wales</b> A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).</p>	<p>The approach seeks to minimise the use of glyphosate herbicide by maximising the use of innovative spraying technology, prioritising areas in most need and minimising the number of glyphosate applications.</p> <p>Japanese Knotweed left uncontrolled, can spread rapidly colonising native wildlife habitats destroying the natural vegetation and reducing the overall biodiversity of an area. A programme of glyphosate spraying is necessary to prevent this.</p> <p>No weed control on hard surfaces would maximise biodiversity benefit but could pose health and safety risks so members are unlikely to wish to pursue this.</p>	
<p><b>A healthier Wales</b> A society in which people's physical and mental well-being is maximised and in which choices and</p>	<p>Use of glyphosate is controversial and there are concerns about its safety. However the EU has licenced its continued use and Welsh Government</p>	

behaviours that benefit future health are understood.	has issued an information bulletin confirming its is safe to use, although the use of any pesticides should be minimised where possible.  Through our procurement processes and contract monitoring, the Council ensures that competent contractors are employed and appropriate health and safety regulations complied with during spraying operations.		
<b>A more equal Wales</b> A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).	Torfaen CBC recruitment process are fully complied with when engaging staff to ensure compliance with equal opportunities. The Council controls weeds on hard surfaces to minimise trip hazards and make routes accessible to all.		
<b>A Wales of cohesive communities</b> Attractive, viable, safe and well-connected communities.	Maintaining hard surfaces ensure the safety of pedestrians		
<b>A Wales of vibrant culture and thriving Welsh language</b> A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.	<i>N.B. You should also outline how the project / activity complies with the Welsh Language Measure (2011)</i>		
<b>A globally responsible Wales</b> A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.			
<b>Section 3) Will your project / activity affect people or groups of people with protected characteristics? Explain what will be done to maximise any positive impacts or minimise any negative impacts.</b>			
<b>Protected characteristics</b>	<b>Will your project / activity have any positive impacts on those</b>	<b>Will your project / activity have any negative impacts on those with a</b>	<b>Is there any way to maximise any positive impacts or minimise any</b>

	with a protected characteristic?	protected characteristic?	negative impacts?
Age	Yes	No	
Disability	Yes	No	
Gender	Yes	No	
Gender reassignment	Yes	No	
Marriage and civil partnership	Yes	No	
Pregnancy and maternity	Yes	No	
Race	Yes	No	
Religion or Belief	Yes	No	
Sexual orientation	yes	No	

**Section 4)** Identify decision meetings for project/ activity e.g. Cabinet, Council or delegated decisions taken by Executive Members and / or Chief Officers.

**Officer Name and Job Title:**

**Date:**