

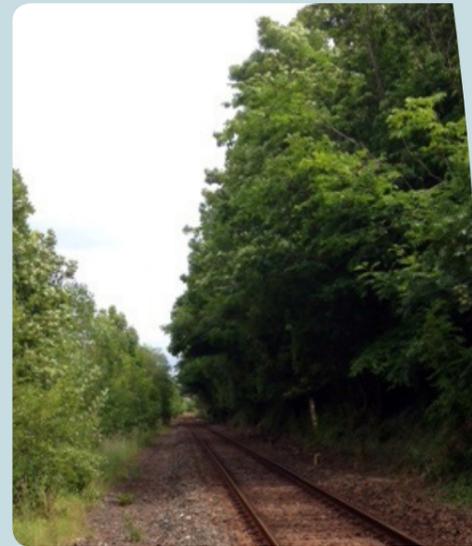
What is the situation?

Vegetation growth poses a risk to the safe operation of the railway by impeding sight lines, blocking access and damaging infrastructure. In certain locations, lineside trees have been left to grow to the size that, if they were to fail, would cause damage trains and service disruption.

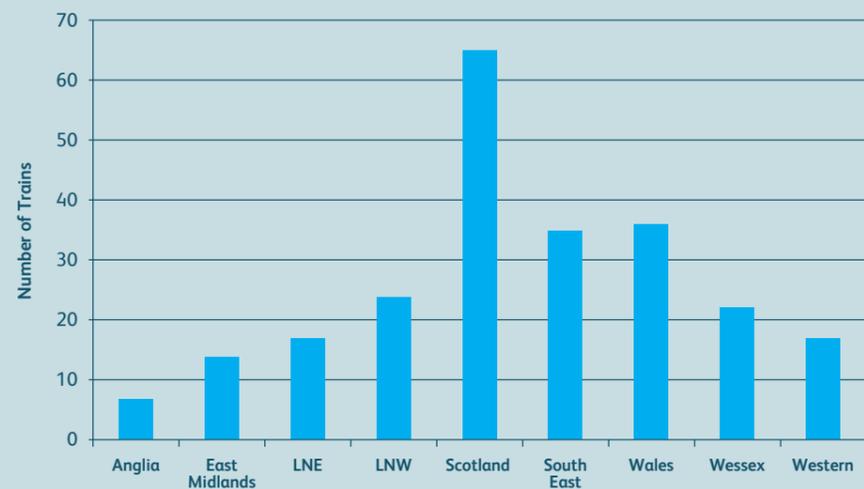
We must not underestimate the impact that vegetation can have on third parties. We have a duty of care and environmental responsibility to observe.

Vegetation management interventions employed to manage this risk, can be complex, potentially hazardous and must consider the impact on the wider environmental aspects.

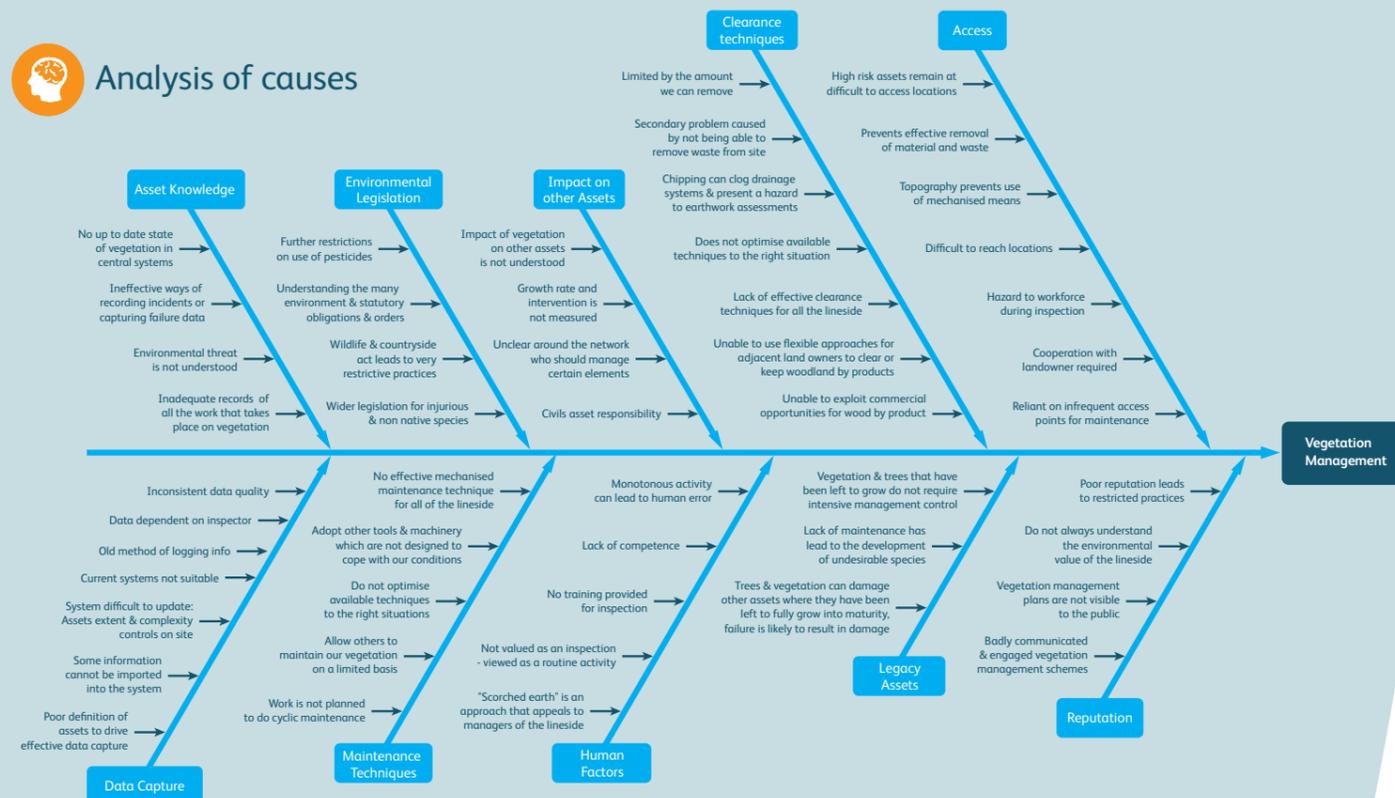
Vegetation encroaching tracks



Trees struck train



Analysis of causes



Priority problems

Specific Priority Problems

- Current specification does not prevent tree failure risk.
- We are currently reactive, not proactive to compliant conditions.
- Our clearance and maintenance activity doesn't sufficiently prevent growth from disrupting the operational railway.
- Our maintenance options need to consider the impacts on the natural environment.
- Reactive responses, often in poor weather conditions' are potentially hazardous.

In addition, we need to understand:

- The social and environmental relationships when undertaking work.
- The effects of vegetation (good and bad) on other civil assets.
- The safety risk with regard to electrical induction.
- The risk of blocking or obscuring critical assets.
- The risk posed by leaf contamination (effects of Autumn regarding rail /train wheel interface).
- We do not fully assess the risk to the railway and our neighbours posed by lineside vegetation.

Related Goals

- Intervention zones that limit the disruption from vegetation growth.
- Effective clearance and maintenance regimes that prevent regrowth.
- Inventory that completes the knowledge of the asset in terms of flora and fauna.
- Management plans that set the strategic goals and time scales.
- Understanding of vegetation intervention in relation to growth rates at the appropriate frequency and techniques.
- Understand the parameters required that can affect the performance of the railway during autumn.

Benefits

- Our operations and assets are not disrupted by vegetation growth.
- We have the capability to clear and maintain the asset.
- We know our asset so that we can predict life cycles and apply the safest, most efficient, intervention method.
- We own the asset and commit to the performance requirements.
- We share our approach with our stakeholders with confidence.
- Asset failure reduction, safer services.
- Business cases supported for clearance operations that will improve performance.

Specific research needs

We seek to complete our vegetation management asset inventory so that it has the capacity to capture specific requirements with regard to risk to the railway. This will involve efficient means of capturing location and height of vegetation and specific requirements such as species type, age classification, condition and local and regional growth rates. This will also include means to capture areas that require special treatment either in controlling the spread of undesirable species or to encourage desirable conditions.

We strive for vegetation management plans that provide clear strategic vision. Setting out our short, medium and long-term commitments for clearance and our future maintenance activities, in line with the types of vegetation being managed and the environment in which it exists. Thereafter, we seek best means of communicating our plans to our stakeholders.

We continually seek to adopt alternative means of treatment that offer safer and efficient ways of working. Our railway operations and adjacent terrain provides a challenge to the traditional methods of vegetation management. Our intervention needs to tackle this but also undertaken at a time and at frequencies that has no detrimental impact on the natural environment.

We seek to research features that inform on asset degradation. This will consider how current and emerging pest and disease could affect the lineside in the future and what it means in terms of accelerating our management plans.