

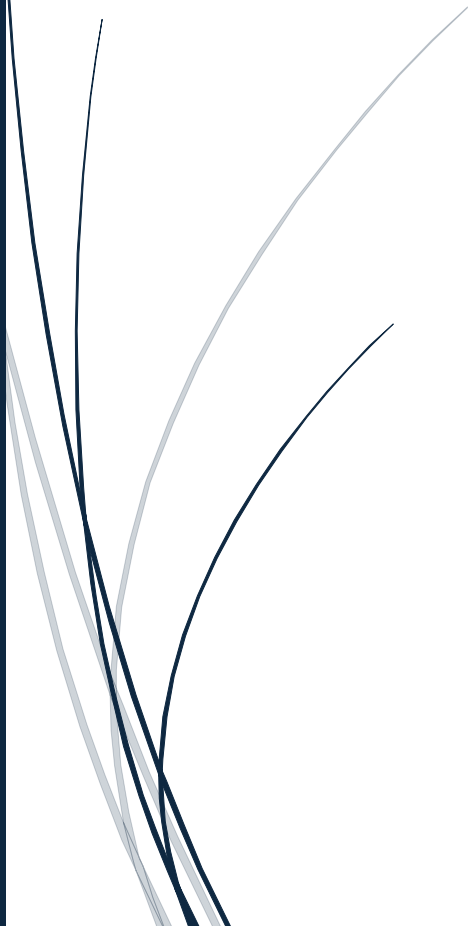
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A. Poster presentation

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REOPENING THE FLOOD-DAMAGED HIGHWAY – WEST MIDLANDS PROJECT



1. Introduction

In July 2025, heavy rainfall caused serious flooding in several towns in the West Midlands, including Worcester, Stourport, and Kidderminster. The River Severn overflowed and water spread across roads, homes, and businesses. Many streets became flooded, electricity systems stopped working, and emergency services struggled to reach some areas.

Because of this situation, roads and transport routes need to be inspected and repaired quickly so emergency services, residents, and supplies can move safely again.

This project focuses on checking and repairing damaged highways to

help communities recover after the flooding.

2. Project Description

The aim of this project is to inspect roads that were damaged by the flood and carry out repairs so that transport can return to normal.

The project will include:

- Inspecting roads and bridges to check for damage
- Removing mud, debris, and floodwater from roads
- Fixing damaged road surfaces
- Making sure key emergency routes are safe to use

This will help emergency teams reach affected areas and support local people during recovery.

3. Scope

In the project

- Inspection of flooded roads
- Checking bridge safety
- Clearing debris and mud from highways
- Temporary and permanent road repairs
- Traffic management and safety measures

Not included

- Repairing private houses
- Rebuilding flood defence systems
- Repairing electricity or water networks

Road Repair Project – Work Breakdown Structure



Road Maintenance Schedule

Activity	Week 1	Week 2	Week 3	Week 4	Week 5
Project planning					
Road inspections					
Repair planning					
Road clearing					
Road repairs					
Traffic safety setup					
Final inspection					

8. Resource Allocation

Staff

- Project manager
- Civil engineers
- Road inspectors
- Construction workers
- Traffic management staff

Equipment

- Survey drones
- Excavators
- Trucks
- Road repair machines
- Safety barriers and signs

Funding

- Government emergency funds
- Local council budget

5. Problem Overview

Flooding

↓
Roads damaged and blocked

↓
Emergency services cannot reach areas easily

↓
Highway inspection and repair project

↓
Safe roads and better transport access

7. Stakeholders

Stakeholder	Responsibility
Local councils	Manage project and funding
Environment Agency	Provide flood information
Emergency services	Identify important routes
Highway engineers	Inspect and repair roads
Local communities	Report damage
Contractors	Carry out construction work

9. Risk Analysis

Risk	Impact	Solution
More flooding	Work delays	Monitor weather
Road collapse	Safety risk	Carry out structural checks
Limited budget	Slow progress	Apply for emergency funding
Worker injuries	Safety problems	Use safety procedures
Equipment shortages	Delays	Hire additional equipment

10. Conclusion

This project aims to inspect and repair roads damaged by flooding in the West Midlands. By fixing key transport routes quickly, emergency services will be able to reach affected areas and communities will be able to recover faster.

Restoring road access will support economic

11. References

- Environment Agency (2023) *Flood and coastal risk management strategy for England*. London: Environment Agency.
- Highways England (2022) *Highway inspection and maintenance guidance*. London: Highways England.
- Project Management Institute (2021) *A guide to the project management body of knowledge (PMBOK Guide)*, 7th edn. Pennsylvania: PMI.
- UK Government (2023) *Flood risk management: policy statement*. Available at: <https://www.gov.uk> (Accessed: 10 March 2026).

B. Feedback and Reflection

The feedback I received from my tutor and peers showed both the strengths of my project poster and the areas I need to improve for my final project plan.

One of the main things I did well was the structure of my work. My poster was clearly organised into sections like the introduction, project description, resources, and risk analysis. This made it easy for people to follow and understand. I also used visuals like charts and diagrams, which helped explain the information better instead of using too much text. Another strong point was choosing a real-life topic about repairing flood-damaged highways, which made the project more meaningful and relevant.

However, there were also some important suggestions for improvement. One major issue was that some parts of my poster had too much text, especially the introduction and project description. This made it harder to read quickly. To improve this, I will shorten the text and use bullet points, so the information is clearer and easier to understand.

Another point was about readability. Some of the text was too small, which could make it difficult to read from a distance. In my final project plan, I will make sure the font size is bigger and easier to see. I will also keep the formatting consistent by using the same style (like bullet points) throughout the poster.

The feedback also mentioned colour and layout. Although I used different colours to separate sections, some of them did not have strong contrast, which affected readability. I will choose better colour combinations and add more space between sections, so the poster does not look crowded.

Finally, I was told that while my risk analysis and resource sections were good, I should explain my ideas a bit more. In my final version, I will add short explanations to show my understanding more clearly.

On the presentation day, I also faced an unexpected situation that helped me learn something new. I came prepared but felt a bit nervous, which is normal when presenting. However, there were technical problems with the recording system, which made everyone feel unsure and more anxious. The IT staff tried to fix the issue, but we had to move classrooms several times and the problem continued. Because of this, only some students were able to present that day, while others, including me, had to present the following week.

Overall, the feedback was helpful because it showed me what I did well and what I need to improve. By making these changes, I will create a clearer and more professional final project plan

Project Management Plan: Emergency Highway Reopening Project (Worcester Flood Recovery 2025)

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1. Introduction:

In July 2025, severe flooding across the West Midlands caused extensive disruption to infrastructure, housing, and essential public services. Worcester was among the worst-affected areas, as the River Severn rose above critical thresholds, leading to submerged highways, damaged transport links, and restricted access for emergency responders. The speed and scale of the flooding highlighted significant weaknesses in regional preparedness and exposed gaps in the existing transport recovery processes.

This project management plan sets out a structured and time-bound approach to reopening flood-damaged highways in Worcester within a 4–6 week period. The plan draws on established project management principles and recognised best-practice frameworks, including the Project Management Institute’s PMBOK guidelines and PRINCE2 methodology, to support effective planning, coordinated execution, and robust risk management (PMI, 2021; OGC, 2017). By applying these frameworks, the project aims to ensure a controlled, transparent, and accountable recovery process.

2. Project Description:

The project focuses on the emergency restoration and reopening of key highways affected by the flooding event. Its primary aim is to re-establish safe, functional transport routes for residents, businesses, and emergency services as quickly and efficiently as possible. This is essential for restoring mobility, supporting economic activity, and ensuring that emergency responders can reach vulnerable communities without delay.

Core project activities include debris clearance, structural inspections, temporary repair works, and formal safety certification. These tasks ensure that all reopened routes meet minimum operational and safety standards before being returned to public use. Due to the urgency of the situation, priority will be given to essential access corridors—particularly those linking hospitals, emergency service facilities, and densely populated residential areas.

This initiative is categorised as a short-term recovery project, rather than a long-term infrastructure redevelopment programme. As emphasised by Kerzner (2022), clearly defining the project type and scope is vital for effective planning, realistic scheduling, and appropriate resource allocation. Establishing these boundaries ensures that the project remains focused on rapid recovery rather than broader infrastructure renewal.

3. Scope

Effective scope definition is essential for maintaining control over project timelines, costs, and deliverables, particularly in time-critical situations. As noted by Meredith et al. (2017), clearly establishing what is included—and excluded—within a project helps to minimise ambiguity, reduce the risk of scope creep, and ensure that resources are directed toward priority outcomes. In the context of emergency highway recovery, a well-defined scope is especially important to enable rapid decision-making and efficient execution under constrained conditions.

In Scope

The project will focus exclusively on activities required to restore immediate functionality and safety of flood-affected highways. These include:

The removal of debris, mud, silt, and other flood-related obstructions that impede safe vehicle movement or pose hazards to road users

Comprehensive structural and safety inspections of road surfaces, bridges, and associated infrastructure to identify damage and assess usability

Implementation of temporary repair works, such as pothole filling, patching, and limited resurfacing, to reinstate basic road conditions

Deployment of temporary traffic management systems, including signage, barriers, and diversion routes, to ensure safe and controlled vehicle flow during and after recovery operations

Phased reopening of priority roads, particularly those serving critical functions such as access to hospitals, emergency services, and key residential areas

These activities are designed to deliver rapid, short-term restoration of essential transport links rather than long-term infrastructure improvements.

Out of Scope

To maintain focus and ensure timely delivery, the project will explicitly exclude activities that fall outside the immediate recovery objective. These include:

Permanent reconstruction or major upgrading of highway infrastructure, such as full road resurfacing, bridge replacement, or redesign works

Development or enhancement of flood defence systems, including drainage redesign, flood barriers, or long-term resilience measures

Any compensation, insurance claims, or financial reimbursement processes related to flood damage, as these fall under separate administrative and legal frameworks

By excluding these elements, the project avoids unnecessary complexity and prevents dilution of resources that are critical for rapid recovery.

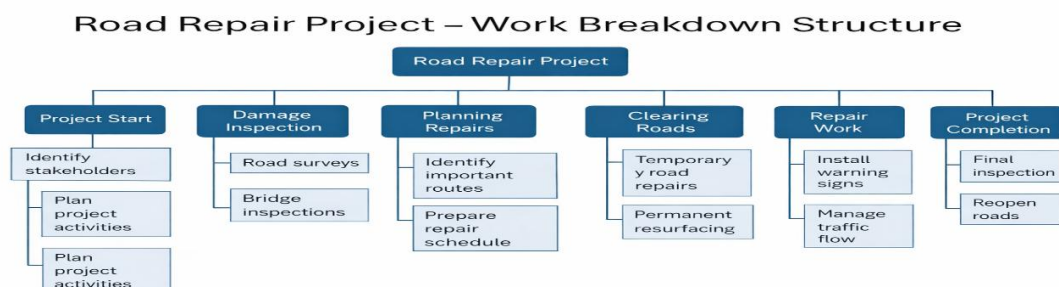
Overall, the scope is intentionally narrow and operationally focused to support completion within the targeted 4–6 week timeframe. This constrained approach enables the project team to prioritise speed, safety, and efficiency, ensuring that essential transport routes are restored as quickly as possible while laying the groundwork for any future long-term infrastructure improvements.

4. Work Breakdown Structure

The Work Breakdown Structure (WBS) is a fundamental project management tool that decomposes the overall project into smaller, manageable components. This hierarchical breakdown enhances planning accuracy, improves task coordination, and strengthens accountability across the project team. As highlighted by Lock (2020), a well-structured WBS enables project managers to allocate resources effectively, monitor progress systematically, and reduce the likelihood of overlooked activities.

At Level 1, the project is defined as the Emergency Highway Reopening Project, representing the overall objective of restoring critical transport routes following flooding.

At Level 2, the project is divided into key functional phases, each representing a major stage in the recovery process:



The WBS breaks the emergency highway recovery project into clear, hierarchical tasks, making it easier to plan, manage, and monitor activities. By dividing the project into key phases such as initiation, assessment, debris removal, repairs, and reopening, it ensures that all essential work is organised and accountable. This structured approach supports efficient resource use, reduces the risk of missed tasks, and helps deliver the project within the required timeframe

5. Quad Chart

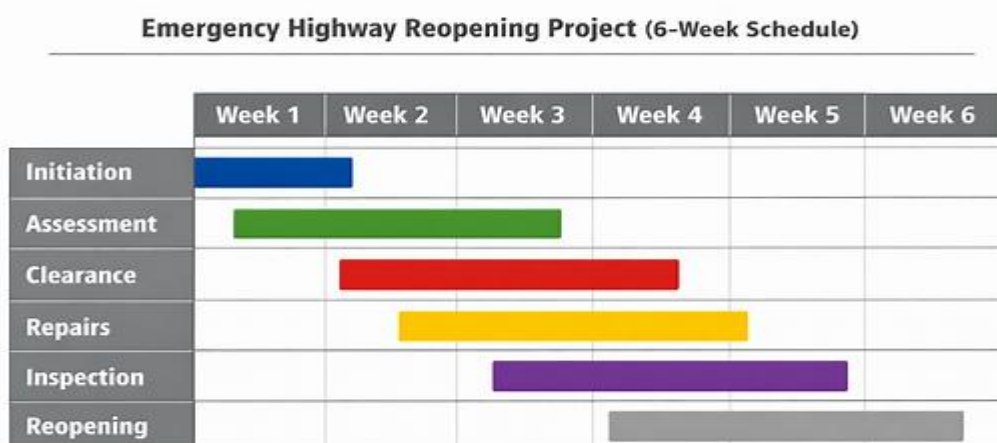
The Quad Chart provides a concise, visual overview of the project's key elements, helping stakeholders quickly grasp priorities, timelines, risks, and resource needs. As Turner (2016) notes, this tool enhances communication and alignment across project teams.



This Quad Chart acts as a strategic communication tool, summarising the project's core objectives, timeframe, challenges, and resource allocation. It supports transparent stakeholder engagement and ensures that all parties share a unified understanding of project priorities and constraints

6. Gantt Chart

The Gantt chart provides a timeline of project activities and their dependencies.



The project schedule demonstrates a logical and sequential progression, ensuring that each phase builds upon the previous one. Inspection is explicitly dependent on the completion of repairs, reinforcing a structured workflow that safeguards quality and safety before reopening.

According to the Project Management Institute (PMI, 2021), tools such as Gantt charts are vital for tracking progress, visualising dependencies, and managing time constraints. This chart enables project managers to monitor overlapping tasks, allocate resources efficiently, and maintain control over the six-week recovery timeline.

The Gantt Chart provides a clear visual framework for coordinating activities, maintaining accountability, and ensuring timely delivery of the project’s objectives — reopening critical highways safely and effectively within the planned timeframe.

7. Stakeholder Involvement

Stakeholder management is a key success factor in project delivery (APM, 2019).

Stakeholder	Role	Influence
Local Council	Project sponsor	High
Environment Agency	Regulatory guidance	High
Contractors	Project execution	High
Emergency Services	Priority access users	Medium
Local Residents	End users	Medium

Effective stakeholder involvement is essential to successful project delivery, as highlighted by APM (2019). The project engages several key groups, including the Local Council, Environment Agency, Contractors, Emergency Services, and Local Residents, each contributing different roles and levels of influence. With high-influence stakeholders driving sponsorship, regulation, and execution, and medium-influence groups representing priority users and end beneficiaries, a structured engagement approach is required. The project will maintain transparency through regular updates, scheduled meetings, and clear public communication to ensure all stakeholders remain informed and aligned throughout delivery.

8. Resource Allocation

Efficient allocation of resources is critical for project success.

Efficient allocation of resources is critical for project success.

Human Resources

- Civil engineers
- Construction workers
- Project manager

Equipment

- Excavators
- Water pumps
- Road repair machinery

Materials

- Asphalt
- Safety barriers
- Signage

Budget

The estimated budget for the project is £500,000, covering labour, equipment, and materials.

Resource planning ensures that the project remains within budget and schedule constraints (Kerzner, 2022).

9. Risk Analysis

Risk management is essential in projects involving environmental uncertainty (Hillson, 2017).

Risk	Likelihood	Impact	Mitigation
Heavy rainfall	High	High	Weather monitoring and contingency planning
Structural damage	Medium	High	Detailed inspections before reopening
Resource delays	Medium	Medium	Pre-arranged supplier contracts
Safety incidents	Low	High	Strict safety procedures

Each risk is evaluated by considering both its likelihood of occurring and the impact it would have on the project, allowing the team to understand its overall severity. Mitigation measures are then put in place to lower the chance of the risk happening or to reduce its effects if it does occur. This approach aligns with guidance from PMI, which emphasises the value of structured risk assessment and the use of tools such as probability-and-impact matrices to support effective risk prioritisation and response planning.

Summary

The Emergency Highway Reopening Project provides a structured plan to restore key transport routes in Worcester following the severe flooding of July 2025. The project focuses on short-term recovery, aiming to reopen essential highways within 4–6 weeks to support residents, businesses, and emergency services.

Using established project management frameworks such as PMBOK and PRINCE2, the plan outlines a systematic approach to planning, scheduling, stakeholder engagement, and risk management. Key activities include debris clearance, structural inspections, temporary repairs, and safety certification, prioritising routes that provide critical access to hospitals and emergency facilities.

By applying recognised best-practice methods and maintaining clear communication with stakeholders, the project ensures a safe, efficient, and accountable recovery process that supports the rapid restoration of mobility across Worcester.

10. Conclusion:

The Emergency Highway Reopening Project presents a structured, realistic, and methodical approach to restoring essential transport infrastructure in Worcester following the severe flooding of July 2025. By concentrating on short-term recovery within a clearly defined scope, the project ensures that critical road networks can be reopened both safely and efficiently, supporting the rapid return of mobility for residents, businesses, and emergency responders. This targeted focus is vital in post-disaster contexts, where timely restoration of access routes directly influences community resilience, economic continuity, and the effectiveness of emergency services.

The project's design is firmly grounded in established project management principles, drawing on recognised frameworks such as the Project Management Institute's PMBOK guidelines and the PRINCE2 methodology. These frameworks provide a robust foundation for structured planning, disciplined execution, and proactive risk control. Their application ensures that the project is delivered in a professional, systematic, and accountable manner, consistent with industry best practice. Key components—including detailed scheduling, stakeholder engagement, and risk assessment—work together to maintain control over the project's 4–6 week timeframe, enabling effective coordination of resources and clear communication among all parties involved.

Furthermore, the integration of tools such as the Work Breakdown Structure, Quad Chart, and Gantt Chart enhances transparency and supports informed decision-making throughout the project lifecycle. These tools help visualise dependencies, track progress, and ensure that activities are sequenced logically to minimise delays and maintain safety standards.

Overall, the project provides a coherent and achievable strategy for restoring highway functionality in the aftermath of flooding. By aligning operational actions with recognised project management standards, it offers a dependable framework for delivering rapid, safe, and effective transport recovery in Worcester.

11. Project Overview:

The Emergency Highway Reopening Project provides a coordinated and structured response to the severe flooding that affected Worcester in July 2025. With the River Severn exceeding critical levels, major transport routes were submerged, restricting mobility, damaging infrastructure, and limiting emergency access. This project offers a focused recovery plan aimed at restoring essential highways within a 4–6 week timeframe to support residents, businesses, and emergency services.

The project is defined as a short-term recovery initiative, concentrating on rapid restoration rather than long-term redevelopment. Key activities include debris clearance, structural assessment, temporary repairs, and safety certification to ensure that all reopened routes meet minimum operational standards. Priority is given to critical access corridors serving hospitals, emergency facilities, and densely populated areas.

A structured project management approach underpins the plan, drawing on established frameworks such as PMBOK and PRINCE2. These methodologies guide the project's planning, scheduling, risk management, and stakeholder engagement processes, ensuring a systematic and accountable delivery model. Tools such as the Work Breakdown Structure, Quad Chart, and Gantt Chart provide clear visualisation of tasks, timelines, and dependencies, supporting effective coordination and progress monitoring.

Stakeholder involvement is central to the project's success. High-influence stakeholders—including the Local Council, Environment Agency, and Contractors—play key roles in sponsorship, regulation, and execution. Medium-influence groups such as Emergency Services and Local Residents contribute essential operational and community perspectives. Engagement will be maintained through regular updates, meetings, and public communication to ensure transparency and alignment.

Risk management is integrated throughout the project lifecycle. Each risk is assessed for likelihood and impact, with mitigation strategies implemented to reduce potential disruption and maintain schedule integrity.

Overall, this project provides a clear, achievable, and professionally structured pathway to restoring safe and functional transport infrastructure in Worcester following the 2025 floods.

12. References:

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