Environmental Management Plan:

Faraday Demolition Works



Document Reference: C0721-EMP-REV-1

Client: University of Manchester

Employers Agent: Arcadis

Issue	Outline	Prepared by	Date	Reviewed by	Date
0	Initial draft	D Mackinlay	24.09.26	Nikki Rowen	24.09.26
1	Ecological Zones	D Mackinlay	09.10.26	Nikki Rowen	09.10.26
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3					

EMP Author	Organisation	[redacted]
Danny Mackinlay	PPOC	

Ecologist	Organisation	[redacted]
Lucia Ruiz Mut	Rachel Haking Ecology	

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1. INTRODUCTION

The Project Environmental Management Plan (EMP) has been developed to define the environmental management arrangements and controls that will be implemented during the demolition of Faraday Tower, located on Sackville Street within the University of Manchester campus, Manchester.

Faraday Tower is a 13-storey structure situated within a busy city-centre university environment. The demolition works will therefore be undertaken in close proximity to occupied university buildings, campus facilities, pedestrians, road users, neighbouring properties and other ongoing activities. The scale and location of the works require environmental risks to be carefully considered, effectively controlled and continuously monitored throughout the demolition process.

The purpose of this EMP is to establish the measures and procedures that will be implemented to prevent pollution and minimise the environmental impacts and disturbance associated with the demolition works. Particular consideration will be given to the management of dust and emissions, noise and vibration, waste and vehicle movements and the wider University of Manchester campus.

Ecological considerations will also form an important part of the environmental management arrangements. The potential presence of habitats and protected or otherwise ecologically important species will be considered throughout the works, including nesting birds, bats and hedgehogs.

The EMP has been developed to ensure that the project is delivered in accordance with applicable environmental legislation, planning conditions, statutory consents and approvals, contractual requirements and the University of Manchester's environmental requirements. It shall be reviewed and updated where necessary to reflect changes in the works, site conditions, environmental risks or project requirements.

P.P. O'Connor has been appointed as Principal Contractor and Principal Designer for the project. All employees, subcontractors, suppliers, consultants and other organisations working for or on behalf of P.P. O'Connor shall comply with the requirements of this EMP and the environmental controls relevant to their activities.

P.P. O'Connor shall plan, manage and monitor the demolition works so far as is reasonably practicable to prevent pollution and minimise adverse environmental impacts. Environmental considerations shall be incorporated into the planning, sequencing and execution of the demolition works, with appropriate mitigation measures implemented to control identified risks.

Given the location of Faraday Tower within a live university campus, effective communication and coordination with the University of Manchester and other relevant stakeholders will be maintained throughout the works. Particular attention will be given to managing the interface between demolition activities and surrounding campus operations, including pedestrian and vehicle movements, adjacent buildings and other ongoing university activities.

1.1. SCOPE OF THE DEMOLITION WORKS

The building is 13 storeys tall and has a reinforced concrete frame, incorporating reinforced concrete floor slabs, beams and columns. The centre of the building contains reinforced concrete cores incorporating multiple lift shafts and staircases. The external façade is constructed from precast concrete panels which were originally lifted into position using cranes during construction.

Due to the construction of the building and the restricted nature of the site, a tower crane is proposed to facilitate the controlled deconstruction of the building from roof level through to ground floor level. The building will be progressively dismantled and demolished with the tower crane, with materials lowered to ground level for processing and removal from site. This approach will allow the works to be undertaken in a controlled manner while managing the constraints associated with the surrounding University of Manchester campus.

Environmental considerations will be incorporated into the planning, sequencing and execution of all works. Due consideration will be given to the potential environmental impacts associated with the demolition and associated activities, including dust and emissions, noise and vibration, and the protection of surrounding buildings and the university environment.

Environmental controls will be monitored throughout the works and adjusted where necessary to reflect site conditions and the changing nature of the demolition.

In summary, the scope of works will include, but not be limited to:

- Establishment of site welfare and associated facilities.
- Soft strip of the building.
- Removal and appropriate management of mercury-containing equipment/materials.
- Asbestos removal by approved university framework contractors.
- Installation of temporary hoists and tower cranes.
- Controlled deconstruction and demolition of Faraday Tower down to ground floor slab level.
- Removal of all plant and equipment from the basement areas.
- Making good and filling of concrete holes, penetrations and voids within the retained slabs.
- Tarmac surfacing and installation of barriers following completion of the works.
- Maintaining the existing basement pumping systems throughout the works.
- Reconnection of basement drainage systems.
- Soft stripping of redundant M&E services within the tunnel and filling in accordance with the tunnel specification.

- Installation of new M&E services within the retained structure in accordance with the Arup specification.

- Segregation, handling, recycling and removal of demolition and construction waste from site.

- Maintaining appropriate environmental controls throughout the works and ensuring waste and materials are managed in accordance with applicable legislation and project requirements.

1.2. ENVIRONMENTAL OBJECTIVES

The primary environmental objective for the Faraday Tower demolition project is to undertake the works in a controlled and responsible manner, minimising the potential impact of the demolition activities on the surrounding environment, University of Manchester campus and neighbouring stakeholders.

P.P. O'Connor will implement appropriate environmental controls throughout the project to ensure that environmental risks are identified, assessed and managed from the planning and enabling works through to completion of the project.

The project-specific environmental objectives are to:

- **Prevent pollution** and minimise the risk of contamination to land, surface water, groundwater and drainage systems through appropriate storage, handling and use of fuels, oils, chemicals and other potentially polluting substances.

- **Control dust and emissions** generated by demolition, material handling, loading and vehicle movements to minimise impacts on the surrounding campus, neighbouring buildings and local environment.

- **Manage noise and vibration** associated with the demolition works to minimise disturbance to the University of Manchester, its experiments, surrounding occupiers and other campus activities, with monitoring as set out in the DNVMP (supporting document)

- **Protect existing drainage infrastructure**, including the basement and drainage systems, and prevent uncontrolled discharge of contaminated water or demolition-related materials.

- **Manage waste responsibly** through the application of the waste hierarchy, with materials segregated where practicable to maximise opportunities for reuse and recycling and minimise waste sent for disposal.

- **Ensure appropriate management of hazardous materials**, including asbestos and mercury-containing materials, through suitably competent and appropriately licensed University approved contractors.

- **Protect local ecology and biodiversity**, including consideration of habitats and the potential presence of nesting birds, bats and hedgehogs. Appropriate ecological inspections, surveys and mitigation measures will be undertaken where required.

- **Minimise environmental impacts from vehicle movements**, including the management of site access, delivery and waste removal activities, prevention of mud and debris being deposited on the public highway and appropriate vehicle and load management.

- **Minimise nuisance to the surrounding environment**, including dust, noise, vibration, lighting, visual impacts and other disturbances arising from the demolition activities.

- **Protect surrounding buildings and infrastructure** from environmental impacts associated with the demolition, including dust deposition, vibration, water ingress and uncontrolled release of demolition materials.

- **Promote efficient use of resources**, including water, energy, fuel and materials, and identify opportunities to reduce unnecessary consumption throughout the project.

- **Ensure compliance with all applicable environmental legislation**, planning conditions, statutory, contractual and University of Manchester requirements and relevant environmental permits, consents and approvals.

- **Maintain effective environmental communication**, ensuring that environmental requirements and controls are communicated to employees, subcontractors, suppliers and other relevant parties working on the project.

- **Monitor environmental performance** throughout the works and promptly investigate and address environmental incidents, complaints, observations and limit level breaches as set out within the DNVP.

- **Continually improve environmental performance** by reviewing environmental controls, monitoring results, incidents, complaints and lessons learned throughout the project and implementing improvements where appropriate.

Environmental objectives will be reviewed throughout the project to ensure that they remain appropriate to the changing demolition activities and site conditions. Where monitoring or project activities identify additional environmental risks, appropriate controls and mitigation measures will be introduced.

The delivery of these objectives will be supported by P.P. O'Connor's ISO 14001-accredited Environmental Management System and the project-specific controls established within this EMP.

1.3. PROJECT DURATION & HOURS OF WORK

The proposed start date for the works at the time of writing was October 12th 2026.

Project Start Date	**Project Completion Date**	**Works Weeks**
12th October 2026	22nd June 2029	144

Work Patterns	**Days**	**Working Hours**
Normal Working Hours	Monday – Friday	07:30 – 18:00
Weekend Works (by agreement)	Saturday – Sunday	08:30 – 14:00
Bank Holidays & Sundays	No Planned Works	

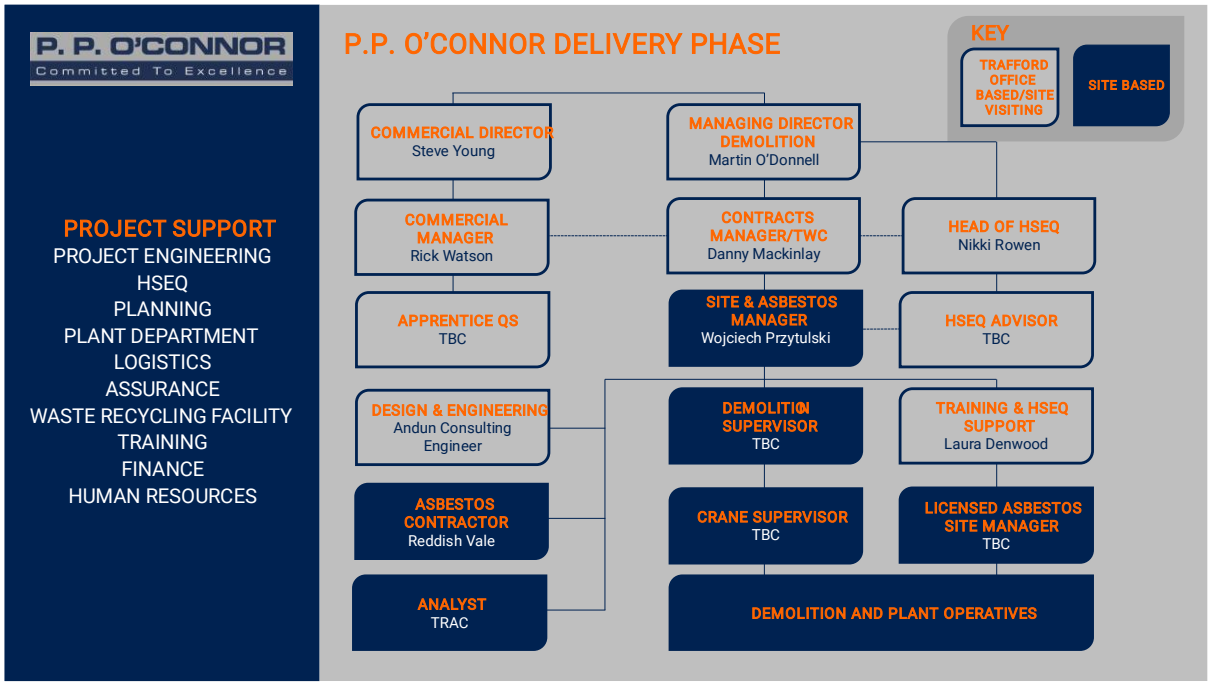
The above work patterns may also be subject to seasonal changes i.e., shorter working days during winter periods.

Works audible at or beyond the site boundary shall not commence before 08:00am Monday – Friday and not before 08:30am on a Saturday (if Saturday working is required)

Overnight working may be required for certain phases / periods of the project (with agreement with Manchester City Council), but this is unlikely to be over an extended period and will be limited to specific tasks that do not give rise to unacceptable nuisance impacts such as noise generation.

Any significant events, such as erecting the tower crane, will be timed in agreement with relevant stakeholders to ensure the minimum off site disruption

2. ENVIRONMENTAL RESPONSIBILITIES



FARADAY - Project Delivery Team

P.P. O'Connor has overall responsibility for managing and protecting the environment and ecological interests associated with the Faraday Tower demolition project.

P.P. O'Connor shall coordinate its supply chain and ensure that all subcontractors, suppliers and organisations working on its behalf, comply with applicable planning, environmental and legislative requirements. These requirements shall form part of the contractual arrangements and will be communicated through procurement, subcontractor appointment, RAMS and site induction.

2.1. CONTRACTS MANAGER

The Contracts Manager has overall responsibility for ensuring the works are properly planned, managed and resourced to minimise environmental impacts.

The Contracts Manager shall:

- Ensure the EMP is developed, implemented, maintained and updated throughout the project.
- Ensure compliance with applicable legislation, planning conditions, consents, contractual and University of Manchester requirements.
- Ensure environmental considerations are incorporated into the planning and sequencing of the demolition works.
- Ensure adequate resources, competent personnel, plant and equipment are available to meet environmental requirements.
- Ensure Environmental Objectives and Targets are communicated and maintained.

- Ensure environmental requirements are incorporated into subcontractor procurement and appointments.
- Ensure appropriate environmental consultants and specialists are appointed where required and their recommendations implemented.
- Liaise with the University of Manchester and Client representatives on significant environmental matters.
- Ensure adequate resources are provided for environmental training and awareness.
- Ensure significant environmental incidents, complaints and non-conformances are investigated and corrective actions implemented.
- Review environmental performance and promote continual improvement.

2.2. SITE MANAGERS / SUPERVISORS

The Site Manager and Supervisors are responsible for the day-to-day implementation of environmental controls.

They shall:

- Implement the requirements of the EMP, RAMS and environmental procedures.
- Ensure environmental risks are considered before and during demolition activities.
- Maintain controls for dust, noise, vibration, waste, water, drainage, pollution and ecology.
- Ensure appropriate arrangements for waste segregation, storage, reuse, recycling and disposal.
- Ensure fuels, oils and chemicals are safely stored and handled.
- Maintain suitable spill response equipment and ensure relevant personnel understand the response arrangements.
- Ensure RAMS identify environmental risks and controls and are communicated to the workforce.
- Undertake regular environmental inspections and address issues identified.
- Report environmental incidents, spills, complaints and significant observations.
- Implement ecological controls relating to habitats, nesting birds, bats and hedgehogs where applicable.
- Stop or suspend activities where there is an immediate risk of significant environmental harm.

2.3. HSEQ TEAM

The HSEQ Team shall provide specialist environmental advice, monitoring and assurance.

The HSEQ Team shall:

- Support development, implementation and review of the EMP and environmental procedures.
- Provide environmental input into RAMS and the Environmental Aspects and Impacts Register.
- Provide or coordinate environmental training and briefings.
- Monitor relevant legislation and advise the project team of environmental requirements.
- Support environmental permits, consents, notifications and liaison with regulators and relevant authorities.
- Undertake environmental inspections and audits and manage resulting observations and non-conformances.
- Provide advice and support following environmental incidents, pollution events and complaints.
- Monitor environmental performance against the project Objectives and Targets.
- Ensure appropriate environmental emergency arrangements are established.
- Maintain environmental records and evidence of compliance.
- Provide specialist environmental and ecological advice where required.

2.4. COMMUNITY LIAISON OFFICER

The Community Liaison Officer shall manage communication with members of the public, local residents, businesses, University of Manchester representatives and other stakeholders.

They shall:

- Act as the primary point of contact for public and stakeholder enquiries.
- Maintain effective stakeholder relationships and provide information on project progress.
- Provide advance notification of activities likely to generate increased noise, vibration, dust, traffic or other disturbance.
- Coordinate public forums, stakeholder meetings and engagement activities where required.
- Undertake local engagement and door-to-door visits where appropriate.

- Record and coordinate responses to enquiries and complaints.
- Ensure environmental complaints are referred to the appropriate project personnel for investigation.
- Maintain records of complaints, responses and corrective actions.
- Provide feedback to the project team on stakeholder concerns and recurring issues.

2.5. EMPLOYEES AND SUBCONTRACT EMPLOYEES

All P.P. O'Connor employees and subcontractors shall comply with the EMP, RAMS, site procedures and environmental requirements relevant to their activities.

They shall:

- Attend the site induction and relevant environmental briefings.
- Comply with environmental control measures and work in accordance with approved RAMS.
- Prevent pollution, unnecessary waste and environmental nuisance arising from their activities.
- Segregate and manage waste in accordance with project requirements.
- Maintain good housekeeping standards.
- Immediately report spills, pollution incidents, environmental damage or other concerns.
- Report sightings or evidence of bats, nesting birds, hedgehogs or other protected species and avoid disturbing wildlife.
- Participate in environmental training, inspections and audits.
- Take individual responsibility for maintaining good environmental practice.
- Subcontractors shall be subject to the same environmental standards as P.P. O'Connor employees, with compliance monitored through supervision, inspections, audits and briefings.

2.6. COMMUNICATION AND COORDINATION

Effective communication between P.P. O'Connor, the University of Manchester, subcontractors and other stakeholders is essential to the effective management of environmental matters throughout the Faraday Tower demolition works.

Environmental information and requirements will be communicated through progress meetings, daily activity briefings, inductions, toolbox talks, inspections and other appropriate communication methods.

2.7. INTERNAL COMMUNICATION

The EMP and any revisions will be communicated to the project team by the Contract Manager, Site Manager or HSEQ Team.

Environmental requirements and forthcoming activities will be discussed at relevant site and project meetings.

Environmental monitoring, audits and inspection findings will be communicated to relevant members of the project team.

Changes arising from surveys, consents, site conditions or stakeholder requirements will be communicated before affected works commence.

Subcontractors will be briefed on relevant environmental requirements through procurement, RAMS, induction and toolbox talks.

2.8. EXTERNAL COMMUNICATIONS AND STAKEHOLDERS

The Contract Manager, supported by the HSEQ Team and Community Liaison Officer, will coordinate environmental communications and ensure relevant information and requirements are recorded and communicated to the project team.

Records will be maintained of relevant written communications and, where appropriate, verbal communications containing key information, instructions or decisions.

2.9. ENVIRONMENTAL REPORTING

Routine environmental reporting will be undertaken in accordance with the contract, planning conditions, University of Manchester requirements and this EMP.

Reporting and monitoring will include, where applicable:

- Dust, noise and vibration monitoring.
- Waste and recycling performance.
- Water and drainage management.
- Environmental inspections and audits.

- Environmental Objectives and Targets.
- Ground or material contamination identified during the works.
- Ecological surveys, inspections and mitigation.
- Stakeholder and environmental performance information.

Monitoring and reporting information will be provided to the University of Manchester and other relevant stakeholders or regulatory authorities where required and at the agreed frequency.

2.10. GROUND CONTAMINATION

Existing contamination reports and environmental information provided by the University of Manchester or its environmental advisers shall be reviewed and considered when developing work methods and RAMS.

Where suspected contamination, including asbestos-containing materials, hydrocarbons or other hazardous substances, is identified, the material shall be assessed by suitably competent personnel and, where necessary, sampled and tested.

Known contamination shall be managed in accordance with the approved work methods to prevent its spread. Contaminated materials shall be appropriately segregated, handled, transported and disposed of in accordance with applicable legislation, with appropriate waste documentation retained.

2.11. DUST, NOISE AND VIBRATION

The demolition works will be undertaken using best practice industry guidance and appropriate mitigation measures to minimise dust, noise and vibration to prevent, so far as reasonably practicable, nuisance to the University of Manchester, neighbouring buildings, pedestrians, road users and other receptors.

Specific control and monitoring requirements will be established within the project RAMS and relevant environmental plans. A separate site specific DNV Management plan has been developed for the scheme. The document and relevant revision should support this EMP.

Where required, monitoring will be undertaken by the HSEQ Team or suitably competent specialists. Results will be reviewed and additional controls implemented where required.

2.12. STAKEHOLDER COMMENTS AND OBSERVATIONS

Environmental comments or observations received from the University of Manchester, neighbouring occupiers, members of the public or other stakeholders will be recorded and referred to the appropriate project personnel.

The Community Liaison Officer will coordinate communications and ensure that relevant concerns are investigated and responded to.

2.13. ENVIRONMENTAL TRAINING

Environmental training requirements will be identified by the Contract Manager and HSEQ Team and will reflect the activities and environmental risks associated with each role.

Training and awareness will include:

- Environmental requirements within the site induction.
- Familiarisation with the EMP and relevant procedures.
- Site-specific environmental controls.
- Environmental emergency and spill response.
- Toolbox talks covering project-specific environmental risks.
- Ecological awareness, including habitats, nesting birds, bats and hedgehogs where applicable.
- Waste segregation and pollution prevention.
- Training records shall be maintained by the HSEQ Team.

2.14. ENVIRONMENTAL INCIDENTS

Environmental incidents and near misses are events that have caused, or have the potential to cause, environmental harm and require immediate action.

Any environmental incident shall be reported immediately to the Site Manager and HSEQ Team and recorded in accordance with P.P. O'Connor's incident reporting procedures.

Immediate action shall be taken to stop or control the source, minimise the impact and protect people and the environment. The incident shall subsequently be investigated to establish the cause and determine appropriate corrective and preventative actions.

Where required, incidents shall be reported to the University of Manchester and relevant statutory or regulatory authorities in accordance with applicable requirements.

Examples include:

- Pollution or uncontrolled release to land, drainage or water.
- Significant or uncontrolled dust, noise or vibration nuisance.
- Discovery of previously unidentified contamination, including asbestos-containing materials.
- Significant waste mismanagement or incorrect disposal.
- Discovery of archaeological remains or unexpected heritage features.

- Discovery of protected, invasive or ecologically significant species.
- Damage to habitats or ecological features.
- Incidents affecting protected species, including bats, nesting birds or hedgehogs.
- Failure of environmental controls resulting in, or having the potential to result in, environmental harm.

3. Preventing Pollution of Land and Water

P.P. O'Connor will implement appropriate controls to prevent pollution of land, drainage systems and watercourses arising from the demolition works. Particular attention will be given to the storage and use of fuels, oils and hazardous substances, plant condition and maintenance, refuelling, waste management, contaminated materials and the management of water arising within the Faraday Tower basement.

3.1. Storage and Handling of Fuels, Oils and Lubricants

Fuel, oils and lubricants will be stored and handled in accordance with applicable legislation, manufacturer's requirements and project environmental controls.

A designated fuel storage and refuelling area will be established within the site compound where practicable. The location will be selected to minimise the risk of pollution and will be away from drainage systems, watercourses and other sensitive receptors.

Fuel tanks and bowsers will be suitably bunded and maintained to provide secondary containment of their contents. Bunds and tanks will be regularly inspected for damage, deterioration and signs of leakage and will be protected from potential impact by site plant and vehicles.

Fuel tanks, bowsers and associated equipment will be clearly labelled with their contents and maximum capacity. Dispensing nozzles and valves will be secured when not in use. Delivery hoses will be fitted with suitable automatic shut-off arrangements and will not be capable of being secured in the open position.

Spill kits suitable for the type and quantity of materials stored will be provided adjacent to fuel storage areas and on mobile fuel bowsers. Spill kits will be regularly inspected and replenished as necessary.

Only trained and competent personnel will undertake refuelling activities. Refuelling will be undertaken in designated areas wherever practicable, with suitable drip trays or other secondary containment provided beneath connections and refuelling points.

Small quantities of fuel required for immediate use may be stored in approved containers and will be subject to suitable secondary containment and controlled handling.

Static or semi-static plant, including generators and compressors, will have integral bunding where provided by the manufacturer or will be positioned over suitable secondary containment. Drip trays and plant nappies will be appropriately sized, maintained and inspected, with any contaminated materials managed as controlled waste.

Any fuel or oil spill will be dealt with immediately in accordance with the project's spill response arrangements. Contaminated absorbents and other materials arising from spill response will be appropriately contained, classified and disposed of.

3.2. Hazardous Substances

Only hazardous substances required for the current works will be brought onto site and quantities will be kept to the minimum reasonably practicable.

Details of hazardous substances held on site will be recorded within the project COSHH arrangements. Appropriate COSHH assessments and Safety Data Sheets (SDS) will be available for substances brought onto site.

Hazardous substances will be stored in suitable, secure and clearly labelled containers, segregated where necessary and provided with suitable secondary storage areas which will be protected from damage and unauthorised access.

Suitable spill response equipment will be provided at hazardous substance storage areas and personnel handling these materials will be briefed on the relevant controls and emergency arrangements.

Where hazardous materials are identified as part of the demolition works, including asbestos-containing materials or mercury-containing equipment, they will be removed by the University Of Manchester approved contractors,

3.3. Mud, Surface Water and Basement Water

Measures will be implemented to prevent mud, silt and other deleterious material being deposited on public roads or entering surface water drainage systems.

Site access routes and haul roads will be maintained in a suitable condition and regularly inspected. Where required, road sweeping will be undertaken using mechanical sweepers or other suitable equipment.

Wheel washing facilities or other vehicle cleaning measures will be provided where necessary based on site conditions and the potential for material to be transferred onto the public highway.

Any mud or debris deposited on the public highway as a result of the works will be removed promptly.

The basement of Faraday Tower is subject to water ingress and periodic flooding. Basement water will therefore require ongoing pumping during the works to maintain the basement in a suitable condition and prevent uncontrolled accumulation of water.

The pumped water will be discharged to the existing drainage system serving the basement, which connects to a culvert located beneath Faraday Tower. The pumping arrangements and discharge point will be managed to prevent the uncontrolled release of contaminated water, silt or other demolition materials into the drainage system.

Before discharge, basement water will be visually assessed for evidence of contamination, including oil, fuel, sediment, unusual discolouration or other substances associated with the demolition works.

Where contamination is suspected, pumping will be stopped or diverted as appropriate and the water will be assessed by a competent person before any further discharge takes place.

Pumping equipment, hoses and discharge arrangements will be inspected regularly to ensure they remain secure and do not create a risk of uncontrolled discharge, leakage or flooding. Appropriate measures will also be implemented to prevent demolition debris, silt and other materials entering the basement drainage system.

3.4. Plant Maintenance

All plant and machinery will be inspected before being brought onto site to identify leaks, damaged hydraulic systems, defective fuel systems or other conditions that could present a pollution risk. Plant presenting an unacceptable pollution risk will not be permitted to operate on site until the issue has been rectified.

Plant and equipment will be operated and maintained in accordance with the manufacturer's requirements to minimise the risk of fuel, hydraulic oil or lubricant leaks.

Routine plant maintenance will, where practicable, be undertaken off site. Where unplanned maintenance or repairs are required on site, these will be undertaken in a designated area with suitable hardstanding and appropriate pollution controls.

Drip trays, absorbent materials and spill response equipment will be available during on-site maintenance activities. Any oils, fuels or contaminated materials arising from maintenance will be contained and disposed of appropriately.

Plant and equipment brought onto site will be recorded within the project Plant Register and maintained in accordance with applicable legislation and manufacturer requirements.

3.5. Demolition Waste

Demolition materials will be managed in accordance with the waste hierarchy, with priority given to prevention, reuse and recycling where practicable.

The following measures will be implemented:

- Demolition arisings will be segregated at source where practicable to maximise opportunities for reuse and recycling.
- Materials suitable for reuse will be identified and retained where practicable.
- Recyclable materials will be segregated and transferred to appropriately authorised facilities.
- Recoverable materials will be processed or transferred to appropriate facilities where practicable.
- Hazardous and non-hazardous wastes will be segregated and managed separately.
- Waste will be classified using the appropriate European Waste Catalogue (EWC) code and managed in accordance with applicable waste legislation.

- Waste will only be transferred to appropriately authorised facilities.
- Waste transported from site will be carried by appropriately licensed waste carriers.

Waste transfer notes, consignment notes and other relevant waste documentation will be retained in accordance with legal and project requirements.

Waste quantities and recycling/recovery performance will be monitored throughout the works.

Waste data will be reviewed throughout the project to identify opportunities to reduce waste, increase recovery and improve environmental performance. Appropriate records, including waste transfer and consignment documentation, will be maintained to demonstrate the movement and final destination of waste arising from the works.

PPOC use waste logics which stores and collates all waste data which has been removed from site. Waste logics is a live software which qualifies all waste type, quantities (weight removed) and cost against the project. The soft ware can also identify what waste was recycled and what has been sent to landfill.

4. Preventing Pollution of the Air

P.P. O'Connor will implement appropriate measures to minimise emissions to air arising from demolition activities, including exhaust emissions from plant and machinery, chemical vapours and dust generated during demolition, material handling and vehicle movements.

Controls will be reviewed throughout the works and adjusted where necessary to minimise the impact on the University of Manchester campus, neighbouring buildings, pedestrians, road users and other sensitive receptors.

4.1. Exhaust Fumes from Plant and Machinery

All plant and machinery will be maintained in good working order and operated in accordance with the manufacturer's requirements to minimise exhaust emissions.

Plant will be subject to appropriate pre-use and daily checks. Any plant identified as producing excessive or abnormal exhaust emissions, or otherwise presenting an unacceptable environmental risk, will be removed from service until the issue has been investigated and rectified.

Where visible black, blue or excessive white smoke is observed from plant exhausts, the equipment will be investigated and, where necessary, taken out of service until the cause has been addressed.

Plant and machinery will be maintained in accordance with manufacturer requirements, with maintenance and inspection records retained as appropriate.

Plant and equipment will be recorded within the project Plant Register and will meet the applicable requirements for use on the project.

Engines will be switched off when plant is not required to operate, subject to maintaining safe operation and any requirements associated with plant controls or site activities. Unnecessary idling will not be permitted.

Where practicable, consideration will be given to the use of lower-emission plant, efficient operating practices and suitable alternative power sources to reduce emissions associated with the works.

4.2. Fumes from Chemicals and Solvents

Chemicals, solvents and other volatile substances will be used and stored in accordance with the relevant COSHH assessment, Safety Data Sheet and manufacturer's instructions.

Containers containing solvents or other volatile substances will remain closed when not in use to minimise the release of vapours to the atmosphere.

Only the quantities required for the works will be brought onto site and containers will not be left open or unattended.

Where activities have the potential to generate significant fumes or vapours, appropriate ventilation and control measures will be identified within the relevant RAMS and COSHH assessment.

4.3. Dust from Site Operations

Demolition activities have the potential to generate dust, particularly during breaking, processing, material handling, loading and vehicle movements. Appropriate measures will therefore be implemented to minimise dust emissions and prevent, so far as reasonably practicable, nuisance or disturbance beyond the site boundary.

Dust control measures will be proportionate to the activities being undertaken and prevailing site conditions, including dry weather and wind direction. Dust-generating activities will be monitored by site personnel and additional controls implemented where necessary.

Where visible dust is observed migrating beyond the site boundary, the activity will be reviewed and appropriate mitigation measures implemented. Where necessary, the activity will be temporarily stopped until adequate controls are in place.

Dust mitigation measures will include:

- Damping down demolition areas, stockpiles and exposed surfaces using hoses, jet wash or dust cannons.
- Applying dust suppression at the source of dust generation during demolition, breaking and material processing.
- Maintaining suitable moisture levels within demolition arisings before ditching materials
- Minimising drop heights when handling demolition materials (if possible)
- Making sure site access road are in a clean condition.
- Using road sweepers where required.
- Sheeting vehicles transporting dusty or loose materials where appropriate.

- Maintaining suitable stockpile sizes and positioning stockpiles away from sensitive boundaries where practicable.

- Maintaining site plant and equipment to minimise unnecessary emissions.

- Implementing a site speed limit to minimise dust generated by vehicle movements.

Dust monitoring and inspection requirements will be established within the project RAMS and Dust Management arrangements. Monitoring will be undertaken at a frequency appropriate to the demolition activities and environmental conditions, with records maintained where required.

Particular consideration will be given to the proximity of occupied University of Manchester buildings, pedestrian routes, neighbouring properties and other sensitive receptors. The effectiveness of dust controls will be reviewed throughout the works and amended where required.

Further details of the controls and monitoring arrangements are provided within the project Dust, Noise and Vibration Management Plan and relevant RAMS.

The table below shows the potential sources of dust on the project and mitigation measures and examples to control nuisance dust throughout the duration of the works.

Source Description	Primary Dust Control Measures	Thresholds / Triggers for Management	Contingency Dust Control Measures
Tipper Wagons and Vehicle Traffic	• Site traffic routes maintained in a suitable condition. • Unpaved or dusty surfaces dampened with water when required. • Site speed limit of 5 mph implemented where appropriate. • Vehicle movements restricted to designated routes • Loads containing dusty materials covered during transport where required. • Access points and roads maintained to prevent mud and material being tracked onto the public highway • Road sweeper used where material is tracked onto the public highway and is creating a dust or nuisance issue.	• Visible dust generated by vehicle movements. • Dust observed beyond the immediate working area or site boundary. • Dry weather combined with strong winds. • Complaints relating to vehicle movements or dust. • Site Manager/HSEQ identifies that existing controls are not adequately controlling dust.	• Increase frequency of water suppression to traffic routes. • Reduce vehicle speeds or restrict movements where necessary. • Increase road sweeping and cleaning. • Review vehicle routing and delivery arrangements. • Temporarily suspend non-essential vehicle movements during periods of high wind where dust cannot be adequately controlled.
Vehicle Fleet Operation	• Engines switched off when vehicles are stationary and not required to operate • Construction vehicles and plant maintained in accordance with manufacturers' requirements. • Pre-use checks undertaken. • Excessive or abnormal exhaust emissions investigated	• Excessive or persistent visible exhaust emissions. • Mud or material being deposited on access roads. • Dust generated by vehicle movements. • Repeated failure to comply with site traffic controls.	• Remove defective vehicles/plant from service until repaired. • Increase cleaning and road sweeping. • Increase wheel-washing arrangements where required. • Review vehicle routing and delivery scheduling.

Source Description	Primary Dust Control Measures	Thresholds / Triggers for Management	Contingency Dust Control Measures
	• Vehicles entering and leaving site kept reasonably clean • Wheel-washing facilities provided where required by site conditions and traffic movements • Site speed limits and designated traffic routes followed.		• Increase site supervision of vehicle movements.
Loading and Unloading	• Drop heights kept as low as reasonably practicable. • Materials handled in a controlled manner to minimise dust generation. • Tipper wagons not overloaded or loaded above the sides of the vehicle. • Loading/unloading operations positioned away from sensitive receptors where practicable. • Dusty materials dampened where necessary.	• Visible dust generated during loading or unloading • Dry and windy weather conditions. • Dust observed travelling beyond the immediate work area. • Complaints associated with loading/unloading activities.	• Increase water suppression. • Reduce drop heights further. • Alter loading/unloading arrangements. • Cover loads where appropriate. • Temporarily suspend loading/unloading during high winds where dust cannot be adequately controlled.
Stockpiled Materials and Demolition Arisings	• Stockpiles kept to the minimum practicable size and height. • Stockpiles positioned away from sensitive receptors where practicable. • Stockpiles dampened where required.	• Visible dust generated from stockpiles or demolition arisings. • Dry weather and strong winds. • Material becoming excessively dry.	• Increase frequency of water suppression. • Cover stockpiles with suitable sheeting. • Reduce stockpile size/height.

Source Description	Primary Dust Control Measures	Thresholds / Triggers for Management	Contingency Dust Control Measures
	• Dusty materials covered where appropriate. • Drop heights when forming stockpiles kept to a minimum. • Stockpiles and demolition arisings not left unnecessarily exposed for prolonged periods. • Wind protection used where required.	• Dust observed beyond the immediate working area or site boundary.	• Install temporary wind protection where appropriate. • Remove materials from site sooner where practicable. • Suspend handling of stockpiled materials during high winds where dust cannot be adequately controlled.
Demolition Activities	• Soft strip undertaken progressively before structural demolition where practicable. • Building structure retained where practicable to provide screening during progressive demolition. • Effective water suppression applied at the point of dust generation. • Hand-held sprays used where they provide more effective localised control • Dust-generating activities planned to minimise exposure to wind. • Drop heights minimised where practicable. • Demolition arisings removed from site progressively.	• Visible dust generated during demolition. • Dust migrating outside the immediate work area or site boundary. • Dry weather and strong winds. • Dust settling on neighbouring buildings, roads or pedestrian areas. • Complaints from UoM, neighbours, pedestrians or other stakeholders. • Site monitoring identifies that existing controls are ineffective.	• Increase water suppression at the point of generation • Increase frequency of damping down. • Reduce the rate of demolition or material handling. • Reduce drop heights. • Change demolition methodology where necessary to reduce dust generation • Increase monitoring and supervision. • Temporarily suspend affected activities until effective controls are established.

Source Description	Primary Dust Control Measures	Thresholds / Triggers for Management	Contingency Dust Control Measures
	• Good housekeeping maintained throughout the works. • Burning of waste prohibited. • Dust controls incorporated into RAMS and briefed to the workforce.		
Track-Out / Site Access	• Site access and traffic routes maintained in a clean condition. • Wheel-washing facilities provided where required. • Roads and hardstanding regularly inspected. • Mud and demolition material removed from roads as soon as reasonably practicable. • Road sweeping undertaken where required. • Site vehicles restricted to designated routes.	• Mud, dust or demolition material being tracked onto the public highway. • Visible dust generated by site traffic. • Complaints concerning road cleanliness or dust. • Traffic routes deteriorating and generating excessive dust.	• Increase road sweeping. • Increase damping down of traffic routes. • Repair or improve damaged traffic surfaces. • Increase wheel-washing arrangements. • Restrict vehicle movements until adequate controls are in place.
Material Handling and Movement	• Materials handled using controlled methods to minimise dust • Drop heights kept to a minimum. • Dusty materials dampened before and during handling where necessary.	• Visible dust generated during handling. • Dust observed outside the immediate work area. • Dry or windy weather conditions.	• Increase damping down. • Reduce drop heights and handling rates. • Change handling methodology • Cover or contain dusty materials.

Source Description	Primary Dust Control Measures	Thresholds / Triggers for Management	Contingency Dust Control Measures
	• Materials removed from site progressively. • Unnecessary movement and re-handling of materials avoided. • Demolition areas maintained in a clean and orderly condition.	• Complaints relating to material handling.	• Temporarily suspend non-essential handling during high winds.
General Site Conditions / Weather	• Weather conditions considered when planning dust-generating activities. • Wind direction and strength monitored during demolition. • Dust-generating activities undertaken during suitable weather conditions where practicable. • Sensitive receptors, including occupied UoM buildings, pedestrian routes and neighbouring properties, considered when planning works.	• Forecast or observed high winds. • Prolonged dry conditions. • Wind direction carrying dust towards sensitive receptors. • Visible dust leaving the working area.	• Increase water suppression. • Alter the sequence or timing of dust-generating activities. • Increase monitoring. • Reduce the rate of demolition/material handling • Temporarily suspend affected activities where dust cannot be adequately controlled.
Dust Monitoring and Complaints	• Visual dust monitoring undertaken by the Site Manager, Supervisor or HSEQ personnel during dust-generating activities. • Site inspections include consideration of dust controls. • Environmental complaints recorded and investigated in accordance with the EMP.	• Visible dust beyond the immediate work area or site boundary. • Repeated dust observations. • Complaint from UoM, neighbours or members of the public.	• Increase frequency of visual or particulate monitoring. • Review and strengthen existing dust controls • Investigate the source of emissions. • Increase water suppression or other engineering controls.

Source Description	Primary Dust Control Measures	Thresholds / Triggers for Management	Contingency Dust Control Measures
	• Portable particulate monitoring undertaken where considered necessary based on risk, site conditions or complaints. • Findings and corrective actions recorded.	• Monitoring results indicate an increase in particulate concentrations requiring further investigation.	• Modify or temporarily suspend the relevant activity until adequate controls are established • Escalate significant or repeated issues through the project's environmental management arrangements.

5. Preventing Pollution to Water

P.P. O'Connor will manage water arising from the demolition works to prevent pollution of the existing drainage system and wider water environment.

The main water-related risks associated with the works are:

- Contaminated water entering the existing drainage system.
- Silt, sediment and demolition debris entering drains.
- Uncontrolled discharge from the basement pumping system.
- Concrete materials and other demolition residues entering drainage systems.
- Flooding or blockage of existing drainage routes.

5.1. Basement Water and Drainage

The basement of Faraday Tower is subject to water ingress and periodic flooding. Pumping will therefore be required throughout the works to maintain the basement in a suitable condition and prevent uncontrolled accumulation of water.

The existing basement drainage arrangement discharges pumped water into the drainage system, which connects to a culvert located beneath Faraday Tower. The pumping and discharge arrangements will be monitored throughout the works to ensure that water is managed in a controlled manner.

Basement water will be visually inspected before discharge for evidence of contamination, including oil, fuel, excessive sediment, unusual discolouration or other materials associated with the demolition works. Where contamination is suspected, the discharge will be stopped or diverted and the water assessed by a competent person before further discharge takes place.

Pumping equipment, hoses and discharge points will be inspected regularly to confirm that they remain secure and operational and do not present a risk of uncontrolled discharge or flooding.

The basement drainage system will be protected from demolition debris, silt, concrete residues and other materials. Any material entering the drainage system will be removed promptly and managed appropriately.

5.2. Surface Water and Site Run-off

Surface water and run-off generated within the site will be managed to prevent sediment and other demolition-related materials entering the existing drainage system.

Site roads, hardstanding and working areas will be maintained to minimise the accumulation and migration of mud, silt and other materials.

Where required, suitable silt control measures, drain protection or settlement arrangements will be implemented based on the location and nature of the works.

Concrete materials and other potentially harmful substances will not be discharged to surface water drains.

Existing drainage routes will be kept clear and inspected regularly to identify blockages, damage or other issues that could affect their operation.

5.3. Drainage Protection

Existing drainage inlets within or adjacent to the work areas will be identified and protected where there is a risk of demolition materials or sediment entering the system.

Drain protection measures may include drain covers, filter socks, silt traps or other suitable measures appropriate to the activity being undertaken.

Drain protection will be inspected and maintained throughout the works and replaced where necessary.

Any proposed temporary alteration, isolation or modification to the existing drainage arrangements will be agreed with the relevant University of Manchester representatives before implementation.

5.4. Monitoring and Control

The condition and operation of the basement pumping and drainage arrangements will be monitored throughout the works.

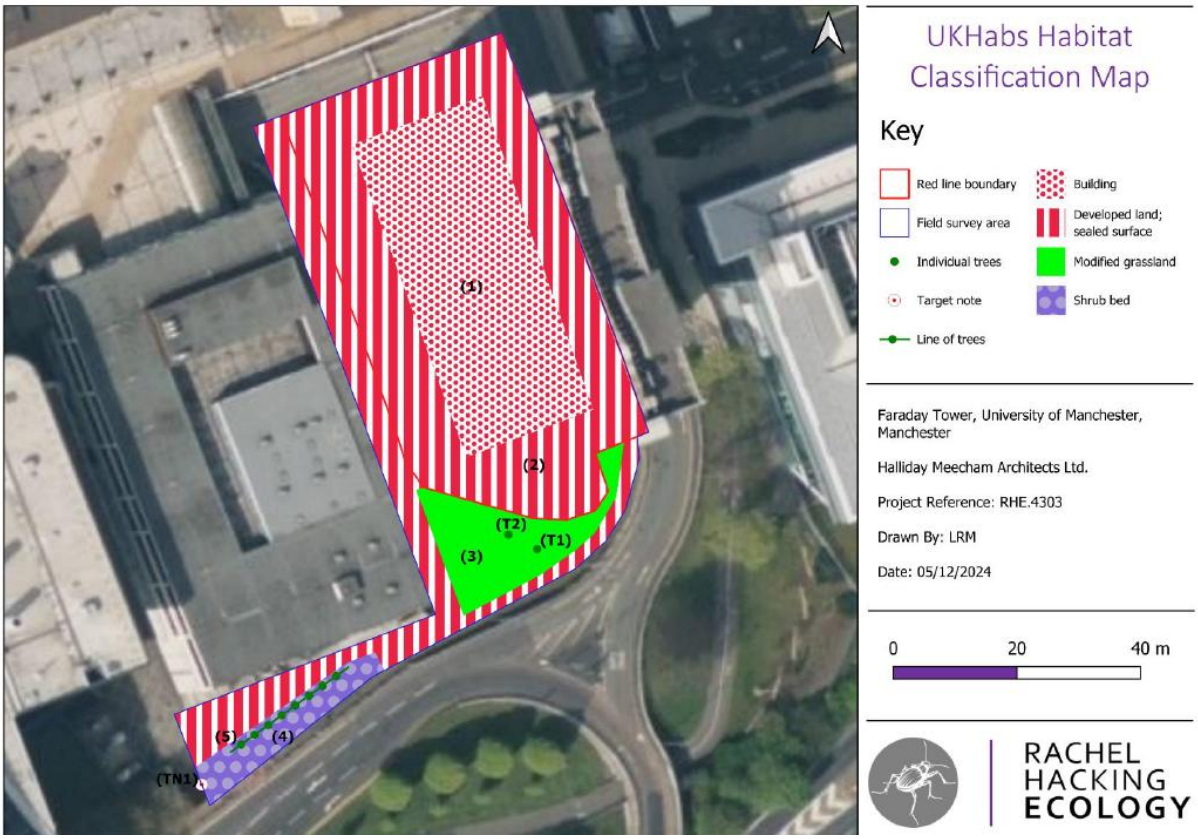
Any significant change in water quality, uncontrolled discharge, drainage failure or other issue with the potential to affect the water environment will be reported to the Site Manager and HSEQ Team and managed in accordance with the project's environmental incident arrangements.

Further controls will be implemented where monitoring or site conditions indicate that existing measures are not providing adequate protection.

6. Ecological Protection and Resource Management

PPOC will manage the demolition works to minimise disturbance to habitats and wildlife throughout the duration of the works. The Rachel Hacking Ecology Preliminary Ecological Appraisal (PEA) prepared has been reviewed and the recommendations relevant to the demolition works have been incorporated into the EMP.

Ecological information and recommendations will be reviewed before relevant activities commence. Where conditions change, or additional ecological constraints are identified, further surveys or specialist ecological advice will be obtained as necessary. Where required by planning conditions or further assessment, ecological controls will also be incorporated into the CEMP, RAMS or other relevant management plans.



Location of habitats close to the faraday Demolition project

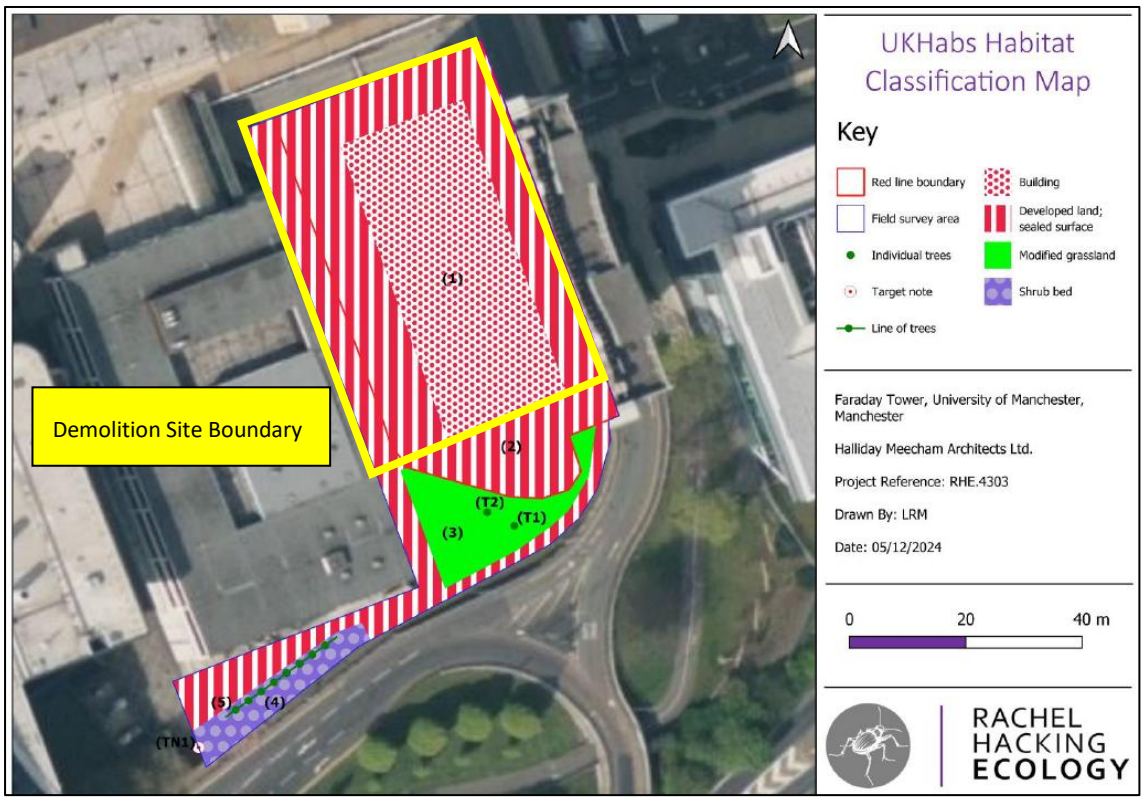
6.1. Habitats and General Wildlife

- Minimise unnecessary vegetation and habitat disturbance and restrict clearance to areas required for the works.
- No intentional disturbance, capture or injury of wildlife.
- Any protected or notable species encountered will be reported to the Site Manager/HSEQ team and appropriate ecological advice obtained.
- If a protected species or evidence of a protected species is identified, works in the affected area will be stopped or controlled until the appropriate advice has been obtained.

- Following demolition, grassed areas will be cleared of demolition debris and spoil and allowed to recover.

- Measures will be implemented to avoid creating unnecessary refuges or areas where wildlife could become trapped.

- Note: The Ecological habitat areas are located outside the demolition site boundary so it is highly unlikely they will be disturbed as a result of the works. The demolition site boundary is shown in yellow in the below image.



6.2. Great Crested Newts, Amphibians and Reptiles

The PEA considers the likelihood of great crested newts being present to be low; however, areas of potential habitat will be considered before relevant works commence.

If great crested newts or evidence of their presence is identified, works will stop in the affected area and an ecologist will be contacted for advice.

No works will intentionally disturb, injure or destroy protected species or their breeding/resting places.

Common amphibians and reptiles encountered during the works will be allowed to move away from the working area where practicable.

Any additional ecological controls identified through surveys or specialist advice will be incorporated into the relevant RAMS.

6.3. Nesting Birds

There is no requirement to remove any trees or vegetation during the demolition of Faraday Tower. The trees identified in the reports are away from the demolition activities.

If an active nest is identified on the Faraday Tower then works in the immediate area will stop and the nest will be protected until the ecologist confirms that the nesting activity has finished and works can recommence.

Relevant personnel will be briefed on the requirements for identifying and protecting nesting birds.

Nesting boxes within the Faraday Tower site boundary will be considered where appropriate and in accordance with the recommendations of the PEA and any planning requirements.

6.4. Peregrine Falcons

Peregrine falcons are known to occur within Manchester city centre and may use the Faraday Tower area for hunting. No peregrine falcon nesting site has been identified on Faraday Tower as part of the current ecological assessment.

The roof and upper levels of the building will be monitored for evidence of peregrine falcon nesting activity during the works. If peregrine falcons are observed nesting on the building, the University of Manchester will be informed and works in the affected area will be reviewed with appropriate ecological advice before proceeding.

As the building may form part of the wider hunting area for peregrines, measures will be implemented, where practicable, to prevent pigeons and other birds from establishing significant concentrations on the roof and upper levels. This will help manage the attraction of prey species to the building while avoiding unnecessary disturbance to peregrine activity.

6.5. Hedgehogs

Smaller excavations will be covered overnight where practicable.

Larger excavations that remain open overnight or for longer periods will be provided with suitable ramps or other means of escape.

Building remains, spoil, demolition debris and brash from any tree works will be stored on sealed surfaces and will not be left unnecessarily, generally for no longer than 24 hours where there is potential for them to provide refuge

Any hedgehog or evidence of nesting will be reported and works controlled until appropriate ecological advice has been obtained.

6.6. Bats

The Pidentifies one Potential Roost Feature (PRF-I). The current intention is to retain the existing trees; however, if tree removal becomes necessary, the ecological implications will be reviewed and further assessment undertaken where required.

A Precautionary Works Method Statement will be implemented where required by the ecologist.

Where identified as necessary, compensation will include provision of one suitable bat box within the Faraday Tower site boundary.

Works will be undertaken in accordance with ecological advice and any relevant licence requirements.

If bats or evidence of a bat roost are identified, works in the affected area will stop and an ecologist will be contacted.

No intentional disturbance, injury, handling, damage, destruction or obstruction of bat roosts will be permitted.

Temporary lighting will be controlled to minimise unnecessary disturbance to bats.

6.7. Badgers

Badgers are not considered a principal ecological constraint to the works; however, the site will be monitored for evidence of badger activity.

If a badger sett or evidence of a sett is identified, works in the affected area will be controlled and appropriate ecological advice obtained.

No disturbance to a badger sett will take place without appropriate advice and any required licence or consent.

6.8. Trees and Vegetation

All Existing trees will be retained with shrubs; trees and their roots will be protected with heras type fencing.

Retained trees will be protected from unnecessary damage arising from demolition activities.

6.9. Resource Use

Materials will be used efficiently and stored appropriately to prevent damage and unnecessary waste.

Materials will be reused or recycled where practicable.

Recycled or sustainable materials will be considered where suitable for the works.

Unnecessary use of materials will be avoided.

The waste hierarchy will be applied throughout the project.

6.10. Energy

Plant, equipment and welfare facilities will be switched off when not required, where safe and practicable.

Unnecessary engine idling will be avoided.

Energy-efficient equipment and lighting will be used where practicable.

Energy wastage will be reported and addressed.

6.11. Water

Water use will be controlled and limited to that reasonably required for the works.

Taps and water supplies will be turned off when not required.

Leaks will be reported and rectified.

Water-efficient dust suppression techniques will be used where practicable.

Unnecessary water consumption will be avoided.

6.12. Vermin

The site will be maintained in a clean and orderly condition.

Food waste will be stored in suitable closed containers.

Welfare and catering areas will be maintained in a hygienic condition.

Food and other materials capable of attracting vermin will be stored appropriately.

Evidence of vermin activity will be reported and, where necessary, addressed through competent pest control arrangements.

7. Emergency Response Instructions

A Pollution Incident Response Plan will be developed specifically for the Faraday Tower demolition works. The plan will identify the potential pollution risks associated with the works, available pollution response equipment, immediate response actions, emergency contacts, notification and escalation arrangements, and requirements for investigation and reporting.

This section sets out the key response principles to be incorporated into the Pollution Incident Response Plan. Detailed emergency arrangements, stakeholder contacts and escalation procedures will be maintained within the project emergency response documentation.

7.1. Emergency Pollution Equipment

Appropriate pollution response equipment will be readily available at identified high-risk areas and within site emergency/spill response stations. Equipment will include, as appropriate:

- Spill kits suitable for oils, fuels and other potentially polluting liquids.
- Absorbent pads, granules and other suitable absorbent materials.
- Drain protection covers or other means of protecting drainage inlets.
- Suitable bags, containers and labels for contaminated materials.

- Shovels and other equipment required to recover contaminated absorbent materials or contaminated ground.

- Suitable temporary containment materials, such as sandbags or other inert materials, where required.

Spill kits and pollution control equipment will be inspected periodically and replenished following use.

7.2. Response Strategy

The immediate response to a pollution incident will follow the principles of Stop – Contain – Notify – Recover – Dispose.

Stop – Stop the source of the pollution where it is safe to do so and suspend activities in the immediate area. Prevent further release or migration of the pollutant.

Contain – Contain the release using the available spill response equipment, absorbent materials, drain protection or other suitable measures. Where appropriate, inert materials such as sand may be used to prevent the spread of liquids. Measures will be taken to prevent pollution entering drainage systems, watercourses or other sensitive areas.

Notify – Notify the Site Manager/Supervisor immediately. The incident will then be escalated to the HSEQ team without delay in accordance with the Pollution Incident Response Plan.

Recover – Recover spilled material and contaminated absorbents using suitable equipment. Contaminated materials will be collected, securely contained and prevented from causing further pollution.

Dispose – Contaminated materials will be appropriately classified, stored and disposed of through an authorised waste carrier and suitably licensed waste facility. Waste documentation will be retained in accordance with project requirements.

7.3. Emergency Contacts

HSEQ Manager – Nikki Rowen – [redacted]

Contracts Manager – Daniel Mackinlay [redacted]

Site Manager – Wojciech Przytulski [redacted]

P.P. O'Connor Head Office – 0161 776 0333 - 24 Hour Emergency Line

University of Manchester – Dan Stinton – [redacted]

Environment Agency – incident Hotline – 0800 807060

Environment Agency – 0370 850 6506

Manchester City Council Environmental Officer – 0161 234 5004

Natural England – 0300 060 3900

Fire Service – Emergency – 999 / 112

Ambulance Service – Emergency – 999 / 112

Police – Emergency – 999 / 112

Hospital – Warrington – 01925 635911

7.4. Environmental Incident Reporting

All environmental incidents and significant near misses will be reported and recorded in accordance with the project incident reporting arrangements.

Where an incident has the potential to affect drainage, watercourses, land, air quality or other environmental receptors, the HSEQ team will assess the incident and determine whether notification to the Environment Agency or another relevant authority is required.

The University of Manchester and other relevant stakeholders will be informed where required by the contract, project arrangements or the nature and severity of the incident.

The Pollution Incident Response Plan will identify the relevant stakeholder and authority contact details, notification requirements, escalation arrangements and reporting procedures applicable to the Faraday Tower works.

All environmental incidents will be investigated as appropriate, with corrective and preventative actions identified where required.

8. Monitor and Review

The environmental performance of the demolition works will be routinely monitored and reviewed to confirm that the requirements of this EMP, relevant legislation, planning conditions and University of Manchester requirements are being implemented effectively.

Monitoring will include environmental audits, site inspections, review of environmental incidents and complaints, waste and resource performance, pollution prevention measures and any project-specific environmental monitoring requirements.

8.1. Audit, Inspection and Monitoring

Environmental performance will be monitored through a combination of formal audits, routine site inspections, management reviews and targeted monitoring undertaken by competent personnel.

The frequency and scope of monitoring will be adjusted where required to reflect the activities being undertaken, environmental risks and any issues identified during the works.

8.2. Internal Audits

Internal environmental audits will be undertaken on a monthly basis in accordance with P.P. O'Connor procedures using the E-FORM-7 Environmental Site Audit.

Audit findings will be recorded and communicated to the relevant project team members, with corrective actions identified and tracked to completion where required.

8.3. Inspections

Environmental inspections will be undertaken by the HSEQ team and project management team as required based on the activities and environmental risks present on site.

Managers and Supervisors will also undertake routine site inspections as part of their normal site management responsibilities. These inspections will include consideration of relevant environmental controls alongside health and safety requirements.

Inspections will consider, as applicable:

- Dust and air quality controls.
- Pollution prevention and spill response arrangements.
- Drainage and water management.
- Waste segregation, storage and removal.
- Protection of habitats, wildlife and ecological constraints.
- Plant, fuel and material storage.
- Site cleanliness and control of debris.
- Environmental complaints and observations.

8.4. Corrective Action

Where an environmental deviation or non-conformance is identified, action will be taken as soon as reasonably practicable to prevent or minimise the potential environmental impact.

Where immediate correction is not possible, the issue will be recorded and appropriate corrective action assigned to a responsible person with a target completion date.

Findings and corrective actions will be monitored and tracked to closure by the HSEQ team.

Where appropriate, recurring issues will be reviewed to identify the underlying cause and determine whether changes to working methods, controls, training or the EMP are required.

8.5. Records

Environmental records will be maintained throughout the demolition works in accordance with project and P.P. O'Connor document control requirements.

Records will include, but not be limited to:

- Environmental reports and monitoring records.
- Environmental inspection and audit records.

- Waste transfer notes and hazardous waste consignment notes.
- Permits, licences, consents and relevant approvals.
- Environmental incident and investigation records.
- Environmental complaints and responses.
- Ecological surveys, inspections and records where applicable.
- Records of corrective actions and close-out.
- Relevant environmental training and briefing records.

The HSEQ team will determine which environmental records are required to be retained following completion of the works and the applicable retention periods.

9. Aspects and Impacts

Ref.	Activity	Environmental Aspect	Potential Environmental Impact	Initial Likelihood	Initial Severity	Initial Significance	Control Measures	Relevant Legislation / Guidance	Residual Rating
1	Site establishment and set-up	Disturbance to existing vegetation and habitat	Loss or disturbance of habitat and wildlife	Low	Medium	Low	Works undertaken in accordance with the PEA and EMP. Site boundaries and working areas clearly defined. Unnecessary vegetation clearance avoided. Any ecological constraints identified before works commence.	Wildlife and Countryside Act 1981; RHE PEA	Low
2	Land clearance and ground works	Disturbance of protected or notable species	Injury, disturbance or loss of protected species	Low	High	Medium	Areas inspected before works. Excavations kept to a minimum and covered or provided with suitable escape routes where required. Works stopped and ecological advice sought if protected species are identified.	Wildlife and Countryside Act 1981; Conservation of Habitats and Species Regulations 2017; RHE PEA	Low
3	Demolition and vegetation clearance	Nesting birds	Disturbance, damage or destruction of active nests	Low	High	Medium	Demolition and vegetation clearance planned outside the main bird breeding period where practicable. Where works cannot be avoided during this period, areas checked by a suitably qualified person/ecologist immediately before works. Active nests protected and works stopped in the affected area until appropriate advice is received.	Wildlife and Countryside Act 1981; RHE PEA	Low
4	Demolition of Faraday Tower	Peregrine falcons	Disturbance to peregrines potentially using the building or surrounding area for hunting	Low	Medium	Low	No peregrine nesting site has been identified on Faraday Tower as part of the current ecological assessment. Roof and upper levels monitored for evidence of nesting. If nesting is identified, UoM notified and affected works reviewed with appropriate ecological advice. Measures implemented where practicable to prevent significant concentrations of pigeons and other prey species establishing on the roof and upper levels.	Wildlife and Countryside Act 1981; RHE PEA	Low
5	Site clearance / ground disturbance	Invasive species	Spread of Japanese knotweed or Himalayan balsam	Low	High	Medium	Extent and location confirmed before relevant works. Affected areas controlled and clearly identified. No uncontrolled	Wildlife and Countryside Act 1981; Environmental	Low

Ref.	Activity	Environmental Aspect	Potential Environmental Impact	Initial Likelihood	Initial Severity	Initial Significance	Control Measures	Relevant Legislation / Guidance	Residual Rating
							movement of soil or vegetation from affected areas. Specialist treatment, removal and disposal undertaken where required.	Protection Act 1990; Arcadis PEA	
6	Demolition, breaking and material handling	Dust and airborne emissions	Dust nuisance, soiling and potential impact on neighbouring buildings, pedestrians and the wider environment	Medium	Medium	Medium	Water suppression used at source. Stockpiles and dusty materials kept damp where appropriate. Drop heights minimised. Site roads and access routes maintained and swept. Dusty loads covered. Weather and wind conditions monitored and works modified where necessary.	Environmental Protection Act 1990; Arcadis PEA	Low
7	Excavation / intrusive works	Unexpected contamination	Pollution of land, groundwater or drainage; exposure to hazardous materials	Low	High	Medium	Unexpected contamination reported to the Site Manager. Materials segregated and assessed before further handling. Appropriate testing and specialist advice obtained where required. Contaminated materials managed and disposed of through authorised routes.	Environmental Protection Act 1990; Environmental Permitting Regulations 2016	Low
8	Basement pumping	Discharge of potentially contaminated water	Pollution of existing drainage system or culvert	Medium	High	Medium	Basement water pumped in a controlled manner to the existing drainage system connected to the culvert beneath Faraday Tower. Water visually inspected before discharge. Pumping stopped or diverted if oil, fuel, sediment, demolition material or other contamination is identified. Pumps, hoses and discharge points inspected.	Environmental Protection Act 1990; Environmental Permitting Regulations 2016	Low
9	Surface water and rainfall	Silt and contaminated run-off	Pollution of drainage systems and receiving water environment	Medium	Medium	Medium	Drainage protection and silt controls installed where required. Stockpiles and potentially polluting materials managed to prevent run-off. Drainage routes kept clear. Site inspected following significant rainfall. No unauthorised discharge of contaminated water.	Environmental Protection Act 1990; Environmental Permitting Regulations 2016	Low
10	Use of plant and machinery	Fuel, oil, exhaust emissions, noise and vibration	Pollution, air emissions, nuisance and potential	Medium	Medium	Medium	Plant maintained in accordance with manufacturer requirements. Pre-use checks undertaken. Defective or leaking plant removed from service. Engines switched off when not required. Spill	Environmental Protection Act 1990;	Low

Ref.	Activity	Environmental Aspect	Potential Environmental Impact	Initial Likelihood	Initial Severity	Initial Significance	Control Measures	Relevant Legislation / Guidance	Residual Rating
			damage to surrounding structures				response equipment available. Noise and vibration controls incorporated into RAMS where required.	Control of Pollution Act 1974	
11	Fuel, oil and hazardous substance storage/refuelling	Accidental spill or release	Pollution of land, drainage and water environment	Low	High	Medium	Fuels and oils stored in suitable bunded/contained areas away from drainage where practicable. Drip trays and secondary containment used. Spill kits provided. Refuelling undertaken by competent personnel in designated areas. Pollution Incident Response Plan implemented where required.	Environmental Protection Act 1990; Environmental Permitting Regulations 2016	Low
12	Concrete, cement, mortar and gypsum works	Alkaline or contaminated residues	Pollution of drainage and water environment	Low	High	Medium	Concrete/cementitious materials prevented from entering drainage systems. Designated washout arrangements provided where required. Residues collected and managed appropriately. Basement drainage protected from demolition debris and cementitious material.	Environmental Protection Act 1990; Environmental Permitting Regulations 2016	Low
13	Waste storage and removal	Generation and handling of demolition waste	Waste pollution, unnecessary disposal and loss of recyclable materials	Medium	Medium	Medium	Waste managed in accordance with the waste hierarchy. Materials segregated for reuse, recycling and recovery where practicable. Hazardous and non-hazardous waste kept separate. Authorised carriers and facilities used. Waste transfer and consignment documentation retained.	Environmental Protection Act 1990; Waste Regulations	Low
14	Asbestos and hazardous material removal	Release or incorrect handling of hazardous materials	Environmental contamination and exposure to hazardous substances	Low	High	Medium	Asbestos and mercury removal undertaken by competent/specialist contractors in accordance with approved RAMS and statutory requirements. Materials segregated, securely contained and removed through appropriate waste routes. Unexpected hazardous materials reported immediately.	Control of Asbestos Regulations 2012; Environmental Protection Act 1990	Low
15	Demolition / ground disturbance	Unexpected archaeological or heritage features	Damage to previously unidentified heritage or archaeological features	Low	Medium	Low	Works stopped if unexpected archaeological or heritage features are identified. Area protected and UoM notified. Appropriate archaeological or specialist advice obtained before works recommence.	Planning requirements; relevant heritage legislation and UoM requirements	Low

Ref.	Activity	Environmental Aspect	Potential Environmental Impact	Initial Likelihood	Initial Severity	Initial Significance	Control Measures	Relevant Legislation / Guidance	Residual Rating
16	Demolition and use of plant	Noise and vibration	Nuisance to neighbouring properties, UoM buildings and occupants; potential impact on sensitive structures	Medium	Medium	Medium	Works undertaken within agreed working hours. Plant maintained and appropriate demolition methods selected. Unnecessary revving and idling avoided. Noise/vibration monitoring undertaken where required. Complaints investigated and controls reviewed.	Control of Pollution Act 1974; Environmental Protection Act 1990	Low
17	Temporary lighting and night works	Light spill	Disturbance to neighbouring properties, pedestrians and wildlife	Medium	Low	Low	Lighting directed towards working areas and away from neighbouring properties and ecological receptors where practicable. Unnecessary lighting switched off. Ecological constraints considered when planning night works.	Environmental Protection Act 1990; RHE PEA	Low
18	Site activities and welfare	Water consumption	Unnecessary consumption of mains water and wastage	Medium	Low	Low	Water use monitored and minimised. Leaks reported and repaired. Taps and water-consuming equipment switched off when not required. Water use for dust suppression controlled to avoid unnecessary consumption.	Environmental Protection Act 1990; UoM requirements	Low
19	Site activities and plant	Energy consumption	Unnecessary energy use and associated carbon emissions	Medium	Low	Low	Plant and equipment switched off when not required. Unnecessary idling avoided. Energy-efficient lighting and welfare equipment used where practicable. Significant energy use monitored and reviewed.	Environmental Protection Act 1990; UoM requirements	Low
20	Vehicle movements and deliveries	Exhaust emissions, mud and debris	Air pollution, nuisance, highway contamination and environmental impact	Medium	Medium	Medium	Vehicle movements planned and coordinated. Site speed limits enforced. Vehicles maintained and engines not left idling unnecessarily. Loads covered where required. Site access and haul routes maintained and swept to prevent mud and debris being deposited on the highway.	Environmental Protection Act 1990; Highways requirements	Low