

Air Quality Monitoring Station (AQMS) - To approve spend and delegate officer

Decision maker: Cabinet member housing, regulatory services, and community safety

Decision date: 11 October 2021

Report by: Senior Project Manager

Classification

Open

Decision type

Non-key

Wards affected

Greyfriars; Leominster East; Leominster North & Rural; Leominster South; Leominster West;

Purpose

To approve expenditure on Air Quality Monitoring Station Resource Improvements to update the equipment on Victoria Street, Hereford with DEFRA approved air quality monitoring equipment and to expand the Air Quality Monitoring Station network to include a second Air Quality Monitoring Station in Leominster. to ensure that the council is able to meet its statutory obligations.

Recommendation(s)

That:

- a. The council undertakes the programme of Air Quality Monitoring Station Resource Improvements as described in the Business Plan (Appendix A) to be completed within a budget of £192,000;**
- b. Delegated responsibility for the award of procurement contracts for the lifecycle of the Air Quality Monitoring Station Resource Improvements project, informed by methodology advised by the council's procurement team be given to the Director for Economy and Place; and**
- c. Delegated authority be given to the Director of Economy and Place following consultation with the S151 officer to be authorised to take all operational decisions necessary to implement the above**

Alternative options

1. Do Nothing: The council does not spend the budget allocated.

This is not recommended. The purchase of this equipment will ensure future and ongoing monitoring of the air quality in the two key Air Quality Monitoring Areas (AQMAs) in Hereford and Leominster. The budget has been approved by full Council.

Key considerations

2. The brief summary and objectives of the air quality monitoring station (AQMS) project is to update the following locations with DEFRA approved air quality monitoring equipment at the AQMS on Victoria Street, Hereford and to expand the network to include a second AQMS in Leominster.

The budget of £192,000 was approved by Council on the 12 February 2021. <https://councillors.herefordshire.gov.uk/ieListDocuments.aspx?CId=291&MId=7829&Ver=4>

3. This decision will formally:
 - i. Approve the spend of £192,000 as per the budget split to deliver the Air Quality Management Station Improvement project (Appendix A Business Case).
 - ii. Delegate all operational decisions relating to delivery of the AQMS project to the Director for Economy and Place.
 - iii. Agree the location for the Leominster AQMS at location 1 in Bargates, Leominster as set out in the Business Case at Appendix A.
4. In Herefordshire, there are two AQMAs due to the levels of nitrogen dioxide, exceeding national standards (40µg/m³). The AQMAs include the A49 Road through Hereford and the Bargates road junction in Leominster.
5. Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society. Further, there is often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas. The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion.
6. The main pollutant of concern within Herefordshire is nitrogen dioxide (NO₂). The major source of the air pollutants in Herefordshire are vehicle emissions, specifically the emissions from the A49 Road through Hereford and Bargates Road junction in Leominster. These areas have been identified as significant.

The implications if the project was not implemented would be:-

- a. Non-compliance with statutory provisions within Part IV of the Environment Act 1995
- b. Limited scope of air quality monitoring data from the Hereford City AQMS

- c. Poor reliability of ageing air quality monitoring equipment
 - d. Adverse impacts on development of council policies, strategies and projects
 - e. A disconnect between passive diffusion tube monitoring and time to process publicly availability results (up to 2 years) to effect behaviour change
 - f. Revenue cost savings would not be realised (this project will remove the need for staff to attend to the AQMS for maintenance and additional calibration tasks (this can require multiple site visits per week if the equipment fails)
7. The project will provide the following benefits and outcomes to the council and community:-
- a. Significantly improve the scope and reliability of air quality monitoring data capture
 - b. Provide real-time DEFRA approved monitoring within the Hereford and Leominster AQMA
 - c. Utilise, integrate, report and promote this information directly to the public through:
 - i. the 'Destination Herefordshire' active travel behavioural change campaign to further influence travel choices and behaviour,
 - ii. the Herefordshire Council Health & Wellbeing Board, and
 - iii. Council media and the council's website
 - iv. Monitor the impact of any other council initiatives on air quality.
 - d. Demonstrate the council's commitment and compliance with statutory provisions within Part IV of the Environment Act 1995
8. The above outcomes will feed into the above groups from approximately 30 April 2022 and will have ongoing benefits. The AQMS equipment is anticipated to be procured by 31 December 2021, however, there may be issues securing equipment because of import or Brexit issues. Residents of the local areas of Leominster may be affected by the installation of the new AQMS cabinet by its visual impact and/or operating noise, although this is assumed minor.
9. The ability to record new and receive more timely data about air pollution will have a positive future impact on residents. Air pollution is associated with a number of adverse health impacts. Therefore, trends of data in Herefordshire will provide information about exceedances in air quality.
10. This project will see the installation of equipment that will supply robust data to detail the air quality variations on a more granular level for air particulates, particularly for the Leominster site because of its inlet positioning on the housing facade.
11. The council shares the same statutory functions in terms of local air quality management as other unitary and district councils.
12. Installing the AQMS at Leominster and replacing the AQMS in Hereford has been, and will be, communicated to key stakeholders including local town councils and ward members. A communication plan is being drafted with the assistance of the council's Communications team to detail the communication with stakeholders. It is anticipated that a press release will be circulated when installation has been completed.

Community impact

13. The [Joint Herefordshire and Worcestershire air quality strategy](#) sets out the council's approach to tackle air quality and to publish annual air quality status reports. Through the significant improvements to air quality monitoring that this proposal will deliver, this will enable both better targeted intervention and also much greater monitoring and evaluation of the delivery of the Hereford and Leominster Air Quality Management Plans.
14. The implementation of this project and the installation of AQMSs within Hereford and Leominster will meet the council's County Plan ambitions of-
 - i. Protecting and enhancing our environment and keeping Herefordshire a great place to live
 - ii. Strengthening communities to ensure everyone lives well and safely together.

Further detail is set out in the table below

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| EN2.1: Complete the Hereford Transport Strategy Review and implement its recommendations on active travel | This project supports the strategy review by ensuring there is robust environmental data on which to base medium to long term decisions |
| EN2.2: Deliver and extend the Choose How You Move sustainable and active travel programme to increase levels of walking and cycling. Including Beryl Bikes, park & choose, active travel in schools, Get Walking, business | This project supports the programme by providing real-time and accurate data which will better inform the public about environmental cost of their personal transport decisions and influence behaviour change |
| EN2.3: Significantly increase electric vehicle charging infrastructure by leveraging private sector investment through the development of a concession contract | This project supports the program by providing data which justifies / supports the need for increased electric vehicle uptake within the County and therefore improves the prospect of successful grant submissions |
| EN3.1: Create a new countywide climate & ecological emergency partnership, strategy and action plan to improve biodiversity and achieve countywide carbon neutrality by 2030 | This project supports the partnership, strategy, and action plan by ensuring there is robust environmental data on which to base medium to long term decisions |
| EN3.2: Introduce supplementary planning guidance on environmental building standards to ensure all new buildings are compatible with our climate and nature goals | This project supports the development of supplementary planning guidance by ensuring there is robust environmental data on which to base medium to long term decisions |

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| EN5.1 Reduce the council's own carbon footprint through implementing our Carbon Management Action Plan, including improving the energy efficiency of schools and academies, reducing staff travel, and working with partners such as BBLP and Halo to reduce their carbon footprint | This project supports review of the council's Carbon Management Action Plan by ensuring there is robust environmental data on which to demonstrate an impact by this intervention |
| EC1.1: Introduce policy to ensure that a robust climate and nature impact assessment is conducted for all infrastructure proposals | This project supports the development of policy by ensuring there is robust environmental data on which to base all infrastructure proposals |

15. The Local Air Quality Management (LAQM) process (as set out in Part IV of the Environment Act 1995 and the relevant Policy and Technical Guidance documents) places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether the air quality objectives are likely to be achieved.
16. Local Authorities are expected to work towards reducing emissions and/or concentrations of PM_{2.5} (Policy Guidance LAQM.PG16 (Chapter 7)). However, health based objective levels for PM_{2.5}'s have not yet been set for local authorities.
17. The EU annual average limit value for PM_{2.5} is 25µg/m³, further there is an additional requirement to reduce the average urban background concentrations by 15% by 2020 (against a 2010 baseline).
18. The Joint Herefordshire and Worcestershire Air Quality Strategy, framework and plan for dealing with the management and delivery of benefits are as follows:-
 - a. All information will be used as part of DEFRA's ASR (annual status report)
 - b. Information about Air Quality data for Hereford and Leominster will be published on the council's website. It will provide a wider spectrum of parameters and an additional location.
19. The council is a Unitary Authority, which enables close working between the sections and teams, which are involved with air quality, its causes, effects and mitigation measures. These include the Energy and Active Travel team, Transportation team and Public Health team. There is also close working with the Environment Agency through various mechanisms including permit consultations and a formal liaison group.
20. Evidence is being collected by the existing Monitoring Station in Hereford as well as simple data collection from diffusion tubes. The new AQMSs will offer a more granular approach to collecting data and result in increasing parameters and further data being monitored. The current Hereford AQMS is becoming increasingly un-reliant and costly due to maintenance.
21. This project has a direct effect on all those living in the Air Quality Management areas in Hereford and Leominster including children in care, care leavers and young people.

22. This decision seeks to deliver the council's [environmental policy commitments](#) and aligns to the following success measures in the County Plan.
- a. Assist to Reduce the council's carbon emissions
 - b. Work in partnership with others to reduce county carbon emissions
 - c. Improve the air quality within Herefordshire
23. This decision will not have a detrimental impact on the environment.
- The council provides and purchases a wide range of services for the people of Herefordshire. Together with partner organisations in the private, public and voluntary sectors we share a strong commitment to improving our environmental sustainability, achieving carbon neutrality and to protect and enhance Herefordshire's outstanding natural environment.
24. The environmental impact of this proposal has been considered through the service specification and includes appropriate requirements on the contractor/delivery partner to minimise waste, reduce energy and carbon emissions and to consider opportunities to enhance biodiversity. This will be managed and reported through the ongoing contract management. Any environmental impacts have been addressed within the specification as far as reasonably practical.
25. Within the contractor's specification, the council will look to ensure that new Air Quality equipment will improve the measurement parameters and will seek to secure through the procurement process that the equipment to be installed will be capable of monitoring oxides of carbon if appropriate.

Equality duty

26. Under section 149 of the Equality Act 2010, the 'general duty' on public authorities is set out as follows:
- A public authority must, in the exercise of its functions, have due regard to the need to –
- a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
 - b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
 - c) Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
27. The public sector equality duty (specific duty) requires us to consider how we can positively contribute to the advancement of equality and good relations, and demonstrate that we are paying 'due regard' in our decision making in the design of policies and in the delivery of services. The council's procured contractor(s) will be made aware of their contractual requirements in regards to equality legislation. The project is not targeted to any particular demographic or protected characteristic group and there are no grounds

for concern Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society. Further, there is often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas. The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion.

Resource implications

28. The project will be financed through the existing capital allocation of £192,000, as confirmed by Council on the 12 February 2021. With an ongoing revenue budget commitment for servicing costs from environmental health revenue budgets.
29. Resource implications to the council will be met through existing officer time. A Procurement Officer and Senior PMO Project Manager have been assigned to the project to assist the Service Lead in the delivery. As well as members of the Project Board.

It is anticipated that there will be a minor impact on Property Services where permissions are granted for the cabinets to be installed and re-installed.

30. The tables below are to support setting out the financial implications of the decision / project.

| Capital cost of project | 2021/22 | 2022/23 | 2023/24 | Future Years | Total |
|--|------------|---------|---------|--------------|------------|
| | £000 | £000 | £000 | £000 | £000 |
| <i>Capital costs of project</i> | 192 | | | | 192 |
| <i>(See Business case attached for detail of costs breakdowns)</i> | | | | | |
| TOTAL | 192 | | | | 192 |

| Funding streams (indicate whether base budget / external / grant / capital borrowing) | 2021/22 | 2022/23 | 2023/24 | Future Years | Total |
|---|------------|---------|---------|--------------|------------|
| | £000 | £000 | £000 | £000 | £000 |
| <i>Corporate Funded Borrowing</i> | 192 | | | | 192 |
| | | | | | |
| TOTAL | 192 | | | | 192 |

| Revenue budget implications | 2021/22 | 2022/23 | 2023/24 | Future Years | Total |
|--|---------|-----------|-----------|--------------|-----------|
| | £000 | £000 | £000 | £000 | £000 |
| <i>Maintenance of Hereford and Leominster AQMS</i> | | 26 | 26 | 26 | 78 |
| TOTAL | | 26 | 26 | 26 | 78 |

31. A business case detailing the finances is attached at Appendix A.

Legal implications

32. The Environment Act 1995 Part IV imposes a duty on the council to regularly review and assess air quality in the council area. The replacement of the Air Quality Management Station in Hereford and the installation of a new Air Quality Monitoring Station in Leominster will support the council in meeting these duties.
33. The replacement air quality monitoring station in Hereford and the provision of a new air quality monitoring station in Leominster will be procured in accordance with the Public Contract Regulations 2015 and the council's contracts procedures rules.

Risk management

34. The key project risks are identified within the table below:-

If recommendations are agreed:-.

| Risk / opportunity | Mitigating actions |
|--|--|
| The project will not deliver on time and on budget | The project is sitting in the Council's Corporate Programme Office and will follow the corporate project management processes to ensure successful delivery on time and on budget. |
| Costs escalating causing additional corporate pressures in revenue contributions for the corporate capital repayments. | The revenue contributions for the capital repayments can be met corporately. Project Board to ensure costs do not overreach proposed budget. |
| No depreciation plan is in place for costs of upkeep. A revenue budget only exists for basic repair and maintenance. | Ongoing repair and maintenance will therefore need to be offset within existing Environmental Protection revenue budget |
| Delays in equipment delivery (if imported from overseas) and particularly to Covid19 issues. | There is no significant impact to this project, if delays in delivery of equipment occur. The capital budget would need to be rolled forward into 2022/2023. Early procurement has been planned subject to council governance decision making and is expected to be awarded in early October 2021 to mitigate this risk once approval has been received |
| Objections and Issues raised in relation to Leominster AQMS installation | Checks have been carried out with relevant parties about the ownership of the relevant land and any stakeholder objections. Contact has been made to request feedback from local councillors, there has been no strong |

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| | objections currently. The Project Board has and will continue to evaluate the Risks. |
| To make best use of improved data, air quality action plans for both AQMA require refresh to reflect deliverable air quality interventions within current planning and transport policies, resource and economic climate. | There is a resourcing plan currently being developed that will enable staff resource to progress a refresh of the air quality action plans ready for the next annual Status Report (ASR), including consultation with stakeholders, modelling and other required workload to complete. |

35. Risks during this project will be reviewed, scored and managed by the Service Lead and Senior Project Manager. The risk register and scoring are reviewed monthly by the Project Board, if any serious risks, where the project is listed at an amber or red RAG rating, the project will be escalated to the Development Board for further consideration.
36. Future operational risks will be managed at a service level and escalated if necessary.
37. If the recommendation(s) are declined, the following key risks have been identified:-
 - a. limited scope of air quality monitoring data from the Hereford City AQMS
 - b. poor reliability of aging air quality monitoring equipment
 - c. non-compliance with statutory provisions within Part IV of the Environment Act 1995
 - d. adverse impacts on development of council policies, strategies and projects
 - e. disconnect between passive diffusion tube monitoring and time to process publicly availability results (up to 2 years) to effect behaviour change and how these will be managed.

These would be managed by continuing with the current Hereford AQMS, although unreliable and ageing, repairs could continue. Diffuse tubes may be used in Leominster AQMA.

Consultees

38. Internal stakeholders including the communications team, property services, procurement, finance and legal have been consulted on this project/proposal. Including external stakeholders including BBLP and Western Power. A project board has been set up to review the project involving many of the pre-mentioned staff.
39. This project has been developed in conjunction with the Head of Environment Climate Emergency and Waste Services. The Cabinet Member for Housing, Regulatory Services, and Community Safety has been consulted.
40. Political groups have been consulted as part of this decision and comments received.

Appendices

Appendix A: Business Case

Background papers

None

Please include a glossary of terms, abbreviations and acronyms used in this report.

| Abbreviation | Full description |
|--------------|----------------------------------|
| AQMA | Air Quality Monitoring Area |
| AQMS | Air Quality Monitoring Station |
| BBLP | Balfour Beatty Living Places |
| RAG | Red, Amber, Green (Risk ratings) |