Agenda Item No:	**5**	
Committee:	**Cabinet**	
Date:	**5 September 2022**	
Report Title:	**Purchase of Air Quality Monitoring Equipment**	

Cover sheet:

1 Purpose / Summary

1.1 To seek approval for the purchase of air quality monitoring equipment to monitor for particulates within the environment known as PM10 and PM2.5.

1.2 To seek approval of the proposal to make monitoring data available on a real – time basis.

1.3 To seek approval for the development of a wider plan of pollution monitoring to consider relevant pollutants for all areas of concern within Fenland. Monitoring to commence in Whittlesey.

2 Key Issues

2.1 A council motion was submitted on 14th July 2022 and attached in appendix A. the motion requested real - time monitoring of particulate pollutants to be considered and a report brought to a subsequent Cabinet meeting.

2.2 Under Section 82 of the Environment Act 1995 every local authority has an obligation to regularly review and assess air quality in their areas, and to determine whether air quality objectives are likely to be achieved.

2.3 Under section 79 of the Environmental Protection Act 1990 every local authority has a duty to monitor their area for statutory nuisances such as dust and odour.

2.4 Air quality reviews undertaken previously (the latest being 2022 which is yet to eb published and remains with Defra for approval at the date of this report being submitted) have not identified any concerns when considering available air quality data however an increase in potentially polluting industrial processes and public reports of pollution should be investigated.

2.5 Several new industrial processes have recently been formally permitted to operate either by Fenland District Council or the Environment Agency. Monitoring is required to be undertaken by these businesses within their site boundaries. Reports of air quality concerns are being received outside of these boundaries and it would be appropriate for the council to act.

2.6 Air quality monitoring equipment must be regularly serviced and calibrated therefore a reputable company and provider must be sought to undertake this work effectively for the council. It is usual for a period of at least 12 months of background monitoring to be commissioned.

3 Recommendation

3.1 To approve the purchase of one monitoring sensor unit, Option B in paragraph 6.2, and associated support services to enable the publication of real time data with the costs being funded from within existing budgets. The first location of this monitoring equipment to be Whittlesey.

Wards Affected	All
Forward Plan Reference	KEY/19JUL22/01
Portfolio Holder(s)	Councillor Sam Hoy, Portfolio Holder for Housing
Report Originator(s)	Annabel Tighe - Head of Environmental Health and Compliance Laura Harwood – Senior Environmental Health Officer
Contact Officer(s)	Anna Goodall – Acting Assistant Director Annabel Tighe- Head of Environmental Health and Compliance
Background Papers	Annual Screening Reviews of the Districts Air Quality are available on our website at Air quality - Fenland District Council

Report:

2 BACKGROUND AND INTENDED OUTCOMES

2.1 Following a Council Motion in July 2022 research has been undertaken to identify the costs associated with monitoring air quality for particulates of sizes 2.5 and 10 micrometres PM10 and PM2.5). The proposal is for monitoring to take place in Whittlesey at a current monitoring site.

2.2 The proposals within this report also cover the monitoring of nitrogen dioxide as a further pollutant of concern as it is included within the costs for particulates.

2.3 The monitoring of these pollutants would be continuous for a period of at least 12 months with 'real–time' data being available on a publicly accessible website.

2.4 An example of the publicly available data can be found by clicking the following link and selecting a local authority area.

Air quality in England (airqualityengland.co.uk)

3 REASONS FOR RECOMMENDATIONS

3.1 The recommendation is based on best value costs to deliver the council's role to monitor air quality, respond to the Member Motion of 14th July and address residents' health and pollution concerns.

4 CONSULTATION

4.1 The Town Council in Whittlesey has been consulted and residents have informed the monitoring plan for implementation in Whittlesey since this has been identified as the pilot location. Prior to installing monitoring equipment in other locations consultation will be carried out with Town Councils and community groups as appropriate.

5 ALTERNATIVE OPTIONS CONSIDERED

5.1 Consideration has been given to the capture of dust using more crude monitoring techniques (such as indicative monitors) however this would not give detailed and real time monitoring results of the type required by residents and members.

5.2 Working with a neighbouring local authority has been considered however the equipment required is very specialist. Partnership working continues with all neighbouring authorities on the management of local air quality however no one authority is in a position to assist at this time.

5.3 The only other alternative is to take no further action however, this would not reflect the express views of members in response to the Motion tabled at Full Council on 14th July 2022. The current arrangements do however satisfy the Council's baseline statutory obligations and include monitoring of nitrogen dioxide and modelling of other potential pollutants.

5.2 Two options are proposed in the schedule in section 6.2.

6 IMPLICATIONS

6.1 Legal Implications

6.1.1 The Council has a duty to screen, review and, where appropriate, monitor air quality within the district as set out within the Environment Act 1995. This review and screening process does not require permanent monitoring sites to be commissioned unless there is reason to believe air quality standards may be exceeded.

6.1.2 It is important to note the responsibility for monitoring compliance with formal permits is the responsibility of the holder of the permit and not the local authority.

6.2 Financial Implications

6.2.1 The budget required for this monitoring project is set as below. There are 2 options with option B being the preferred more cost effective and flexible solution. Both options are for a 4-year programme. Both options include the public access options for real time monitoring results. Costs for relocating monitors are not included as these are site dependant and variable however the relocation of Option B would likely be better value.

6.2.2 **Option A** – the purchase and installation of a reference monitoring station. This monitor will provide relatively accurate readings for those identified pollutants. This option is suitable for long term monitoring, provides accurate results however the site will take longer to set up and initial costs are higher.

If approved, Option A would require a change to the capital programme and procurement requirements would mean a full tender process with final costings being available following that process. Additional revenue provision for the annual running costs would also be required as these are significantly higher than Option B.

6.2.3 **Option B**– the purchase and installation of pollutant sensors. These sensors will provide good background readings of the identified pollutants although are less accurate. Data ratification costs are however included within the budgeted costs detailed below. Sensors are easily installed, easier to relocate and offer better value with lower set up costs. If approved, the initial and annual costs associated with option B would be funded from existing budgets. There are no capital programme issues with Option B.

6.2.4 Where other funding avenues can be perused, such as through Department of Food and Rural affairs grants, these will be considered and applied for.

Option A – Purchase and running costs of a reference monitoring station for the data capture of nitrogen dioxide, particulates of 10 and 2.5 micrometres.		
Item	Cost (1 year)	Total (4 years)
Equipment	£45,500	£45,500
Installation	£ 3,000	£ 3,000
Initial Cost	**£48,500**	**£48,500**
Maintenance	£10,000	£40,000
Subscription	£ 500	£ 2,000
Annual Cost	**£10,500**	**£42,000**

Option B – preferred option Purchase and running costs of an air quality sensor for the data capture of nitrogen dioxide, particulates of 10 and 2.5 micrometres.		
Item	Cost (1 year)	Total (4 years)
Equipment	£3,500	£ 3,500
Installation	£ 600	£ 600
Initial Cost	**£4,100**	**£4,100**
Maintenance	£ 600	£ 2,400
Subscription	£3,000	£12,000
Annual Cost	**£3,600**	**£14,400**

6.3 **Equality Implications**

6.3.1 The programme of monitoring will commence in Whittlesey and rotate to other locations within the Fenland District as appropriate and as evidence suggests need.

6.4 **Any Other Relevant Implications**

6.4.1 It is possible that screening, reviewing and monitoring of particulates of 2.5 micrometres will be required by future legislation.

6.4.2 The Combined Authority are proposing a monitoring programme for traffic related pollutants as an element of the transport strategy. Procurement options can be explored to fund an extension to this scheme.

6.4.3 Where department of food and rural affairs funding is available this will be requested directly. The next opportunity to bid for this funding is late September 2022.

APPENDIX A

Motion submitted by Councillor Boden regarding Air Quality Monitoring in Whittlesey

Residents within Whittlesey have been reporting an increasing number of cases of poor air quality in recent months.

Within Fenland there is a disproportionately large number of potentially significant sources of Industrial air pollution in Whittlesey. Key among those sources are, and will be, the Forterra Brickworks and activities within Saxon Pit, but there are others as well.

Sites where there is a significant recognised risk of harmful air pollution are heavily regulated by the Environment Agency as well as often being subject to planning conditions imposed by either Cambridgeshire County Council or by Fenland District Council.

There has for many years been comprehensive monitoring at the brickworks site, and enhanced air quality monitoring equipment will soon be installed at or near to Saxon Pit as a result of development there which has recently been approved by Cambridgeshire County Council.

There is concern within Whittlesey as to the effects of current and future industrial activity on air quality in the town.

Fenland District Council has for many years monitored air quality in Whittlesey, currently including monitoring of levels of nitrogen dioxide and sulphur dioxide.

It is important that the residents of Whittlesey have confidence that air quality is appropriately monitored and effectively reported so that action may be taken if it is ever necessary.

Full Council therefore resolves:

1. to support in principle the siting within Whittlesey of monitoring equipment measuring particulate matter, particularly PM2.5

2. That Officers be requested to present a Report to the next scheduled meeting of Cabinet outlining:

a. the capital and revenue costs and preferred location(s) for such additional monitoring equipment

b. how FDC may facilitate online up-to-date public reporting of monitored air quality in Whittlesey (including, where possible, from third party monitoring equipment), recognising that whilst some monitoring data may be available real-time, other data (such as that from diffusion tubes) is necessarily only available historically.