

Review of air quality monitoring at the Mossmorran complex

November 2021



Air quality monitoring at the Mossmorran complex

In September 2021, the Scottish Environment Protection Agency (SEPA) held four virtual community engagement sessions in partnership with Fife Council and the Health and Safety Executive. These events were a key step in listening to the needs of the community and informing our review of the monitoring we undertake around the Mossmorran complex and how we share the results of that monitoring with the local community.

Following the sessions, we have reviewed the way we will monitor air quality at the Mossmorran complex in the future.

Listening to community feedback

SEPA has been monitoring air quality in community locations surrounding the Mossmorran complex since August 2019. To date, our monitoring has shown no breaches of the air quality objectives, but it was clear in hearing from the community that there continues to be a concern about air quality in the area. The community asked for:

- Permanent monitoring of air quality in the communities around Mossmorran.
- Simple, easy to understand and timely data, with the ability to get more detail if required.

There were also a range of views on which particular species/pollutants were of most concern to the community from combustion products (nitrogen dioxide and particulate matter) to Volatile Organic Compounds (VOC) and ozone.

How we will monitor in the future

SEPA currently operates four monitoring locations; one of which monitors for particulate matter (PM₁₀ and PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂) and sulphur dioxide (SO₂) and three of which monitor for particulate matter (PM₁₀ and PM_{2.5}).

Taking the feedback from communities into account, SEPA is implementing a new monitoring plan that will change the monitoring locations and increase the number of monitoring points. The range of species that we measure will also increase.

The monitoring equipment will include:

- One community location site with a roadside enclosure housing reference method monitors for particulate matter (PM₁₀ and PM_{2.5}) and nitrogen dioxide (NO₂). Alongside this will be a sensor array with the ability to measure particulate matter (PM₁₀ and PM_{2.5}), nitrogen dioxide (NO₂), ozone and total Volatile Organic Compounds (VOC).
- Seven further community locations have been identified for sensor arrays. These will monitor the same species as above and will provide a comparison of levels around the site.
- Additional monitoring for VOC closer to the site boundary is being considered.

The new monitoring equipment will allow us to explore improved ways of presenting data and trends on the levels of the species/pollutants measured. Placing a sensor array next to the reference monitor will allow data from the two different types of monitoring equipment to be compared.

Indicative locations for the monitors are shown on the map below:



Figure 1: Map of the area showing the locations of all eight monitors surrounding the site

What are the benefits?

There are two key benefits of the new monitoring plan:

- The number of monitoring stations has doubled, increasing from four to eight.
- A wider range of ambient species will be monitored for including particulate matter (PM₁₀ and PM_{2.5}), nitrogen dioxide (NO₂), ozone and total Volatile Organic Compounds (VOC).

We will continue to be able to communicate remotely with the monitors, but we will be able to receive and present real time data in better ways, to better suit the needs of different parts of the community.

Presenting data to communities

We are still working on how the data might be provided to the community and further details are expected to be available in Spring 2022. We will ensure that the information is presented in a format that is easy to understand. We hope to engage with the community in the process of presenting the data, to ensure we are meeting the required needs.

What are the timescales for the new monitoring plan?

The new monitors are expected to be operating in late 2022.



Figure 2: Timescale for the plan with programme implementation in late 2022

- Community engagement workshops completed - September 2021
- Community web consultation completed - September 2021
- Revised AQ monitoring programme to be shared with stakeholders - Late Nov/Early Dec 2021
- Means of sharing AQ monitoring data to be shared with stakeholders - Spring 2022
- Revised AQ monitoring programme implemented - Late 2022

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