Air Quality and Dust Management in the Elk Valley

2018 Community Update

Teck is working to address community feedback regarding dust generated from our Elk Valley operations that is visible from the community.

Teck takes dust management very seriously and we have an extensive dust management program in place.

In addition to our current practices, we are working on new strategies and new equipment to minimize and manage dust generation from our operations.

In addition, Teck has in place continuous monitoring equipment in and around Sparwood and throughout the Elk Valley which monitor the level of dust particles.

We welcome feedback from the community to help us to understand whether our mitigation measures are working, and if there are new issues that we need to address.

Feedback can be left anonymously but if you leave your contact details we will always follow up with a response.

- Phone toll-free to **1.855.806.6854** and leave a message.
- Send an email to **feedbackteckcoal@teck.com**.
- Fill out a feedback form, available from Teck feedback box outside the **District of Sparwood Office**.

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Dust Management in the Elk Valley

Teck's Elk Valley operations are committed to using best practices to manage dust generated on site.

In 2016 a Dust Management Committee was formed with Elkview's senior management, which in turn is part of a Regional Air Working Group encompassing all five mines in the Elk Valley. Under the working group, all the operations are working together to develop and share best management practices and robust monitoring systems. Teck is committed to open and transparent community engagement regarding dust management.

Mines in the Elk Valley have extensive dust management programs, which may include:

- Water trucks are used to keep active road and pit areas wetted to minimize dust generation (fig. 1)
- Prioritization of water truck maintenance during the summer months (fig. 1)
- Wind fencing on the lagoons (fig. 2)
- Water sprinkler systems located at the processing plant and in-pit operations (fig. 3)
- Train car treatment (fig. 4)
- Hydroseeders to keep dust down on the lagoons, coarse coal refuse, clean coal stockpile, highwalls and various other locations around the mine site (fig. 5 and 8)
- Mister trucks, misters trailers or mister cannon systems (fig. 6 and 7)
- Reclamation of former mining areas
- Intermittent and real-time cameras directed at operations to help personnel understand what site looks like from the community, to aid dust identification for mitigation planning


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Continuous Improvement

In addition to the systems already in place, Teck is working on innovative solutions including employing new strategies and new equipment to minimize dust generation.

Future Plans on Dust Management

Teck is evaluating over 30 projects to further improve dust management at site. Currently, projects underway include:

- Trialing watering of blast patterns prior to blasting
- Investigating alternate blast technology to reduce vibrations
- Trialing various mulch products for effectiveness
- Piloting new technology to reduce or eliminate the requirement for a coal dryer
- Piloting modelling dust 'hot spots' on site and determining mitigations with the greatest effectiveness
- Additional air monitoring equipment to monitor air quality
- Trialing suppressant on cable belt transfer points to reduce dusting from clean coal stockpiles
- Evaluating several chemical dust suppression products for use on heavy and light vehicle roads
- Evaluating monitoring equipment to develop triggers to alter activities at the mine site to reduce visible dusting

Air Quality Monitoring Program

Teck has in place continuous monitoring equipment in and around the Elk Valley which monitors the level of dust particles.

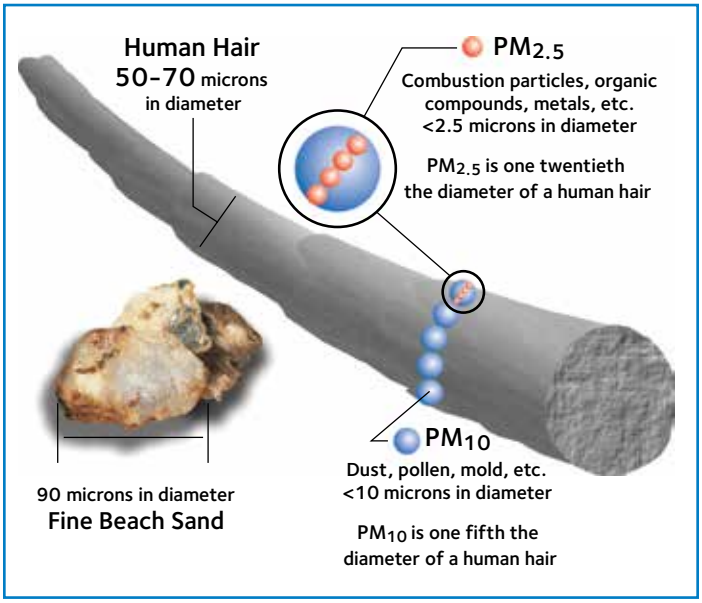
Continuous Air Quality Monitoring Station Locations

Teck has eight continuous air quality monitoring stations through Hosmer, Sparwood, Elkford and Corbin that are maintained and verified by a qualified third party.

What is Being Monitored

Particles that make up dust come in many sizes; some are too small to see.

Air Quality regulations that aim to protect human health focus on the smallest particulate matter that is less than 2.5 microns or 10 microns in diameter (PM2.5 or PM10). Total Suspended Particulate (TSP) is monitored to assess nuisance dusting.



Continuous Air Quality Monitoring Station Locations

1. **Hosmer:** PM10, PM2.5, MET
2. **Andy Good:** TSP, PM10, PM2.5, MET
3. **Downtown:** PM 10, PM2.5, MET
   Camera takes regular photos of Elkview from community's perspective.
4. **Michel Creek Road:** TSP, PM 10, PM 2.5, MET
5. **Whispering Winds Trailer Park:** TSP, PM 10, PM 2.5, MET
6. **Line Creek:** TSP, MET
7. **Elkford:** TSP, PM10, PM2.5, MET
8. **South Spoils:** PM10, MET

MET = wind speed, wind direction and temperature

Public Reporting of Data

Teck's air quality data, as well as other monitoring data, is reported to the B.C. Ministry of Environment under Elkview's air effluent permit and to the District of Sparwood.

The annual air quality report is provided to the community at **www.teck.com/elkview-reports**

Updates to the Elk Valley air quality & fugitive dust management programs can be viewed at **https://www.teck.com/elkvalleydustmanagement/**