Results:

Wind-rose analysis (right) shows that the prevailing wind direction is SSE and that all of the measured species also have their highest values when winds are from the SSE as well.

We also looked at March 5 which had high Ozone that did not decay overnight but normal PM2.5 in the air.

February 10 (above) had some interesting combinations of species. A HYSPLIT back-trajectory was calculated for this day.

Conclusions:

Ephraim is in a rural area and has a clean air background. Most of the pollution that we find is coming into the valley from other places. Having a station in Ephraim allows us to see where the air is coming from and allows us to see the impact and solve the problem of the pollution that is bringing brought into Ephraim everyday.

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References:


https://www.ready.noaa.gov/hypub-bin/trajtype.pl