

# Bollettino\_ValleGaleria

April 12, 2024

## 1 Bollettino dell’Aria - Valle Galeria

## 2 a cura di “CheAriaTira”

## 3 Mese di Aprile 2024

## 4

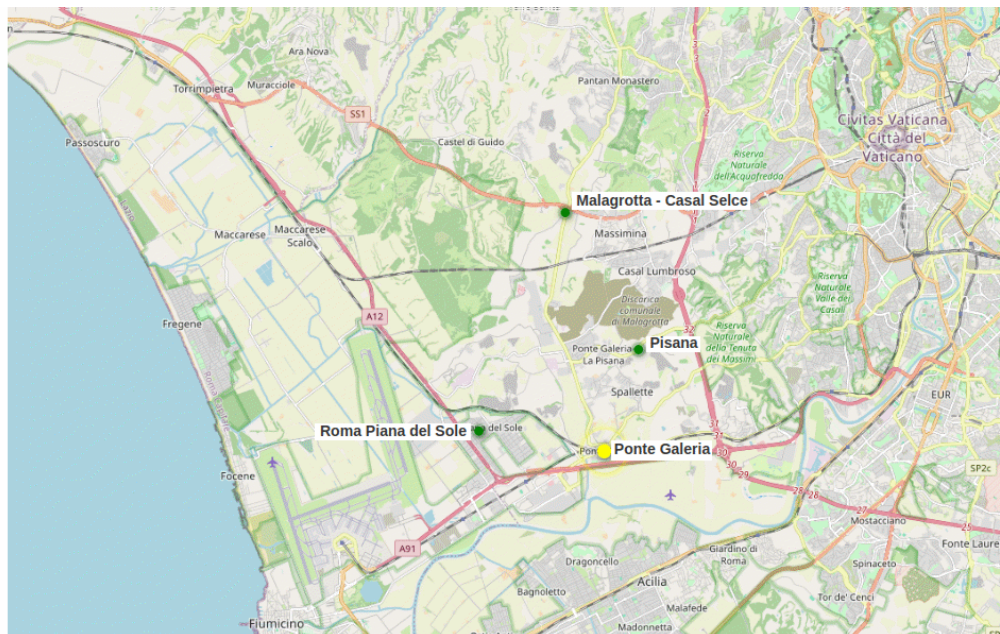
### 4.1 Edizione Speciale:

##### Incendio Ad Ardea (Roma)

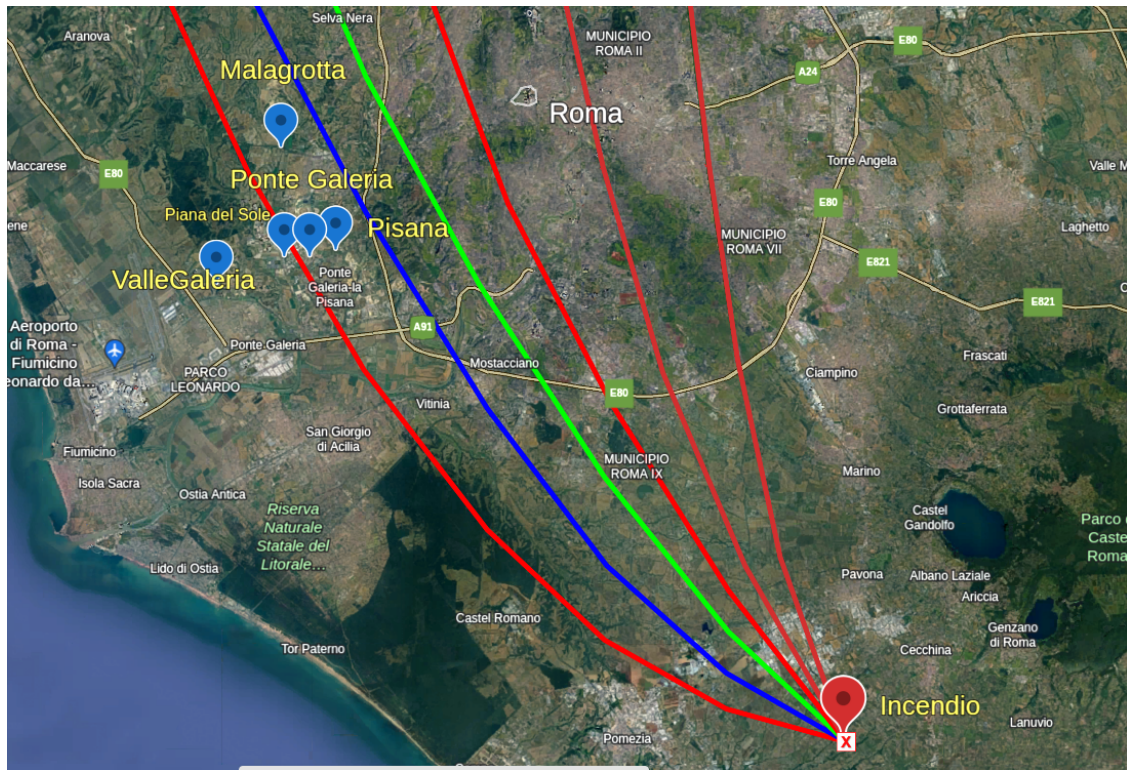
Le stazioni interessate sono :

- **Pisana** (ID453)
- **Malagrotta - Casal Selce** (ID454)
- **Ponte Galeria** (ID455)
- **Roma Piana del Sole** (ID456)
- **Roma-ValleGaleria** (ID437)

dislocate nella città come rappresentato dalla Mappa sottostante



Di seguito la mappa di Propagazione dei fumi dell'incendio a 50 m di altezza durante l'incendio



La mappa è stata generata con il [matematico della NOA](#) di cui si riporta i parametri di configurazione.

READY users produced 2625 un-registered HYSPLIT simulations since 00 UTC today!

## Type of Trajectory(ies)

### Number of Trajectory Starting Locations

- 1 Note: By choosing just one source location, more options for selecting the location will be presented on the next page, such as choosing by latitude/longitude, by WMO ID, or by plant location. Multiple source locations limit the input to just latitude/longitude positions. This option is ignored for trajectory ensemble and frequency.
- 2
- 3

### Type of Trajectory

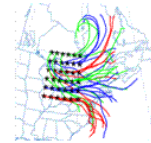
- Normal  Matrix  Ensemble  Frequency

Next>>

## Details

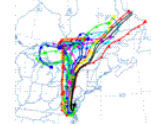
### Trajectory Matrix

The trajectory matrix option will run a grid of trajectories bounded by the first 2 source locations (trajectory 1 is the lower left grid point and trajectory 2 is the upper right grid point) and evenly spaced with a grid increment given by the distance between the lower left grid point (trajectory 2) and trajectory 3. Only one height is allowed.



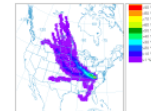
### Trajectory Ensemble

The trajectory ensemble option will start multiple trajectories from the first selected starting location. Each member of the trajectory ensemble is calculated by offsetting the meteorological data by a fixed grid factor (one grid meteorological grid point in the horizontal and 0.01 sigma units in the vertical). This results in 27 members for all-possible offsets in X,Y, and Z. Note: the starting height should be greater than 250 m for optimal configuration of the ensemble.



### Trajectory Frequency

The trajectory frequency option will start a trajectory from a single location and height every 6 hours and then sum the frequency that the trajectory passed over a grid cell and then normalize by either the total number of trajectories or endpoints. A trajectory may intersect a grid cell once or multiple times (with residence time options 1, 2 or 3).



[Privacy Policy](#) | [Contact Us](#)

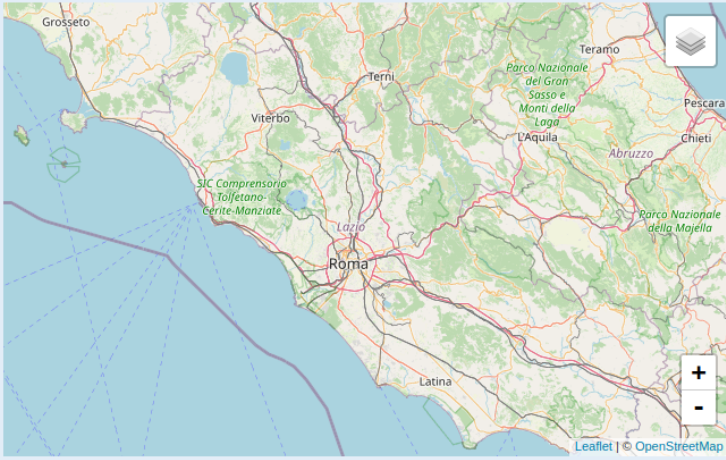
Web site owner: [Air Resources Laboratory](#), NOAA's Office of Atmospheric Research, National Oceanic and Atmospheric Administration.

## Meteorology & Starting Location(s)

### Trajectory Calculation

**Meteorology:** GFS 0.25 Degree (84h fcst, 3 hrly, Global, Hyb sigma-pres) ▾ [More info ▶](#)  
[View Current NAM Fire Weather Domains](#)

**Source Location** (enter using **one** of the following methods):



Click a location on the map or select from below:

Decimal Degrees Latitude:   N  Longitude:   W

DDD/MM/SS Latitude:     N  Longitude:     E

City (Country or State; name; lat; lon):

Airport or WMO ID (i.e., dca):  [ID Lookup](#)

[Reset Form](#) [Next>>](#)



**NOAA**  
Air Resources Laboratory

[ARL Home](#) > [READY](#) > [Transport & Dispersion Modeling](#) > [HYSPLIT](#) > [HYSPLIT Trajectory Model](#)



### Meteorology File

**Meteorology:** GFS0p25  
**Source Location:** Lat: 41.669333 Lon: 12.607639

Select Meteorological Forecast Cycle: 00 UTC / 20240412 ▾ [More info ▶](#)

[Next>>](#)



[Privacy Policy](#) | [Contact Us](#)  
Web site owner: Air Resources Laboratory, NOAA's Office of Atmospheric Research, National Oceanic and Atmospheric Administration.

## Model Run Details

Request trajectory

The current GFS model has archive data beginning at 04/04/24 0000 UTC and 240 hours of forecast data beginning at 04/12/24 0000 UTC.

### Model Parameters

**Trajectory direction:**  Forward  Backward (Change the default start time!) [More info](#) ▶

**Vertical Motion:**  Model vertical velocity  Isobaric  Isentropic [More info](#) ▶

**Start time (UTC):** Current time: 07:09  
year: 24 month: 04 day: 08 hour: 5 [More info](#) ▶

**Total run time (hours):** 240 [More info](#) ▶

**Start a new trajectory every:** 1 hrs **Maximum number of trajectories:** 6 [More info](#) ▶

**Start 1 latitude (degrees):** 41.669333 [More info](#) ▶

**Start 1 longitude (degrees):** 12.607639 [More info](#) ▶

**Start 2 latitude (degrees):**

**Start 2 longitude (degrees):**

**Start 3 latitude (degrees):**

**Start 3 longitude (degrees):**

**Automatic mid-boundary layer height? Will override selections below.**  Yes  No [More info](#) ▶

**Level 1 height:** 50  meters AGL  meters AMSL [More info](#) ▶

**Level 2 height:** 0

**Level 3 height:** 0

### Display Options

**GIS output of contours?**  None  Google Earth (kmz)  GIS Shapefile [More info](#) ▶

The following options apply only to the GIF, PDF, and PS results (not Google Earth)

**Plot resolution (dpi):** 120 [More info](#) ▶

**Zoom factor:** 70 [More info](#) ▶

**Plot projection:**  Default  Polar  Lambert  Mercator [More info](#) ▶

**Vertical plot height units:**  Pressure  Meters AGL  Theta [More info](#) ▶

**Label Interval:**  No labels  1 hour  6 hours  12 hours  24 hours [More info](#) ▶

**Plot color trajectories?**  Yes  No

**Use same colors for each source location?**  Yes  No [More info](#) ▶

**Plot source location symbol?**  Yes  No

**Distance circle overlay:**  None  Auto [More info](#) ▶

**U.S. county borders?**  Yes  No [More info](#) ▶

**Postscript file?**  Yes  No [More info](#) ▶

**PDF file?**  Yes  No

**Plot meteorological field along trajectory?**  Yes  No [More info](#) ▶

Note: Only choose one meteorological variable from below to plot

**Dump meteorological data along trajectory:** [More info](#) ▶

- Terrain Height (m)
- Potential Temperature (K)
- Ambient Temperature (K)
- Rainfall (mm per hr)
- Mixed Layer Depth (m)
- Relative Humidity (%)
- Downward Solar Radiation Flux (W/m\*\*2)

Malagrotta - Casal Selce  
 Pisana  
 ID455 Dati Non pervenuti  
 Roma Piana del Sole  
 Roma-ValleGaleria

Tabella Valori PM10 Medi Massimi

|   | nome                     | data               | pm10       | over | over consecutivi |
|---|--------------------------|--------------------|------------|------|------------------|
| 0 | Malagrotta - Casal Selce | 09/Apr/2024 ore 05 | 82.988401  | 4    | 2                |
| 1 | Pisana                   | 09/Apr/2024 ore 00 | 398.735830 | 10   | 9                |
| 2 | Roma Piana del Sole      | 08/Apr/2024 ore 06 | 41.070800  | 0    | 0                |
| 3 | Roma-ValleGaleria        | 09/Apr/2024 ore 04 | 150.657601 | 4    | 2                |

Tabella Valori PM2.5 Medi Massimi

|   | nome                     | data               | pm2_5     | over | over consecutivi |
|---|--------------------------|--------------------|-----------|------|------------------|
| 0 | Malagrotta - Casal Selce | 09/Apr/2024 ore 05 | 30.196400 | 3    | 2                |
| 1 | Pisana                   | 09/Apr/2024 ore 04 | 48.222083 | 8    | 8                |
| 2 | Roma Piana del Sole      | 09/Apr/2024 ore 04 | 18.850400 | 0    | 0                |
| 3 | Roma-ValleGaleria        | 09/Apr/2024 ore 04 | 92.738400 | 10   | 7                |

#### 4.1.1 Legenda :

**over** : Numero ore in cui il limite di 50 ug/m3 per il PM10 e 25ug/m3 per il PM2.5(1) è stato superato

**over consecutivi** : Numero di ore consecutive per cui il limite è stato superato

Note:

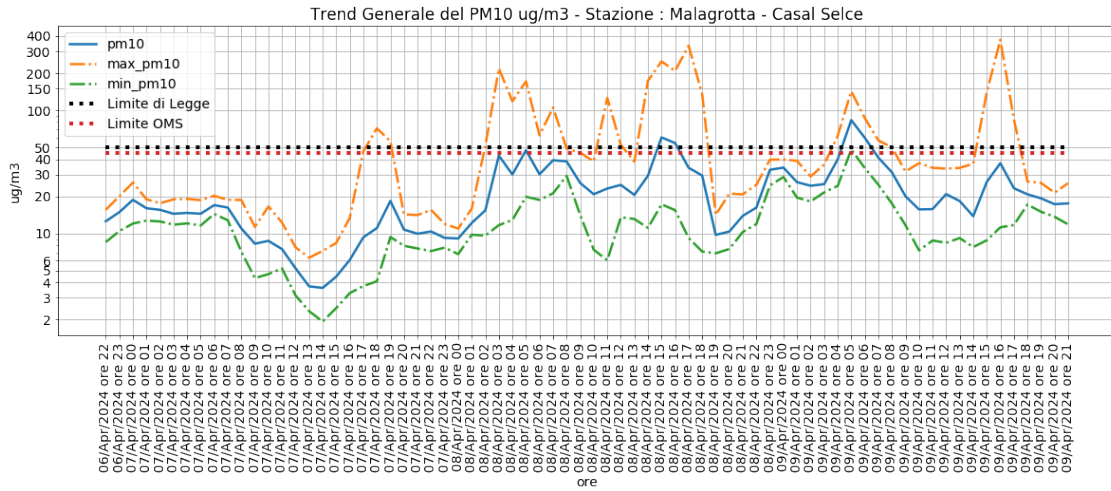
- 1) IL limite giornaliero per il PM2.5 non è previsto nella legislazione Italiana ma è contemplato nella nuova direttiva Europea del 26 Ottobre 2022 ed è comunque raccomandato dalla Organizzazione mondiale della Sanità (OMS)

Di seguito la tabella comparativa tra la legge in vigore, la direttiva Europea e le raccomandazioni della OMS:

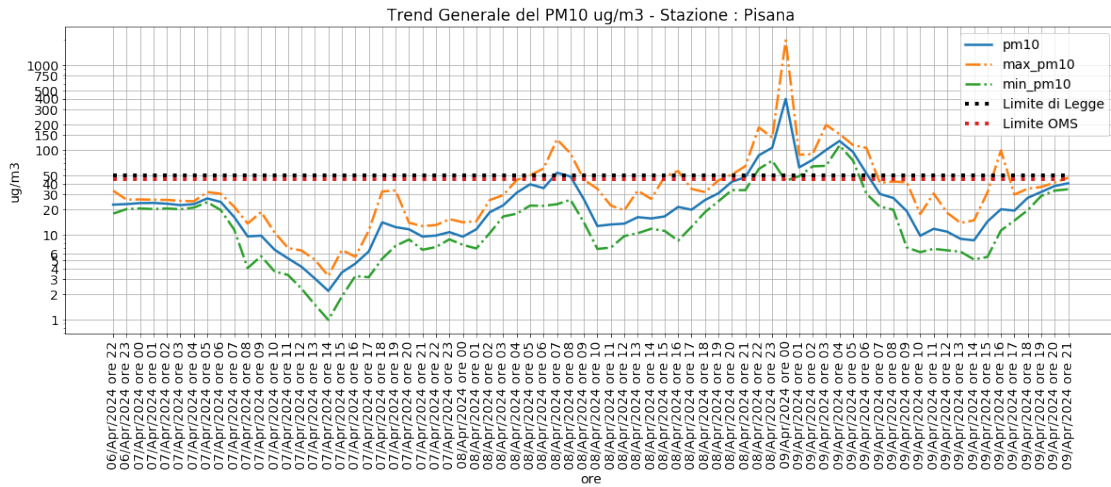
|                      | DL 115/2010            | Direttiva CE           | OMS                                    |
|----------------------|------------------------|------------------------|--|
| PM10 giornaliero     | 50 ug/m3               | 45 ug/m3               | 45 ug/m3                               |
|                      | massimo 35 superamenti | massimo 18 superamenti | 99° percentile delle medie giornaliere |
| Valore PM10 Annuale  | 40 ug/m3               | 20 ug/m3               | 15 ug/m3                               |
| PM2.5 giornaliero    |                        | 25 ug/m3               | 15 ug/m3                               |
|                      |                        | massimo 18 superamenti | 99° percentile delle medie giornaliere |
| Valore PM2.5 Annuale | 25 ug/m3               | 10 ug/m3               | 5 ug/m3                                |

## 4.2 Grafici per PM10 distinti per centralina

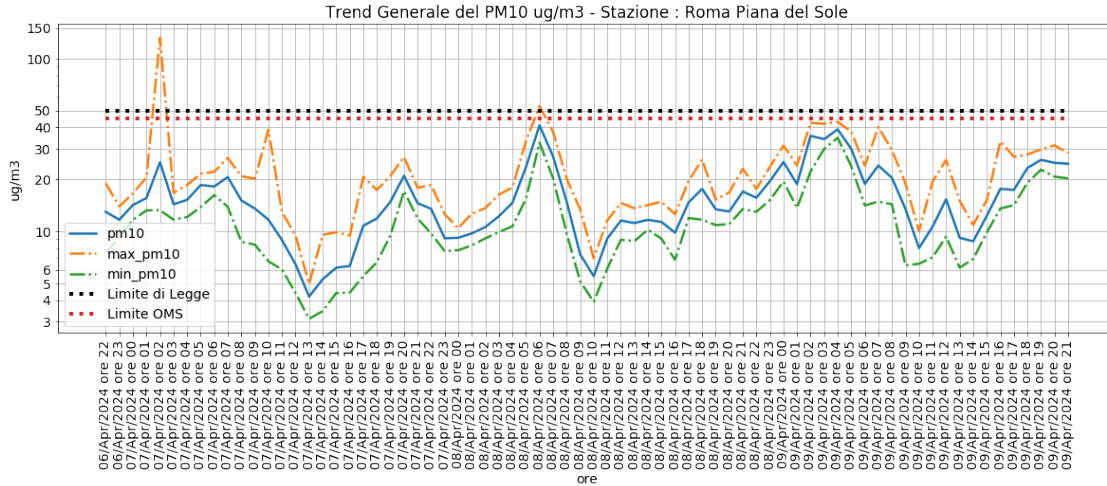
Malagrotta - Casal Selce



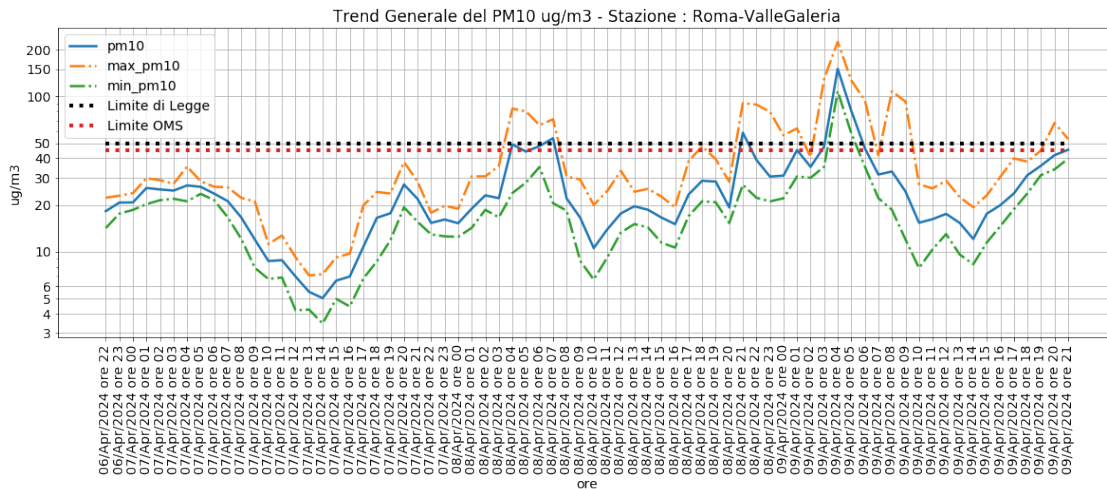
Pisana



Roma Piana del Sole



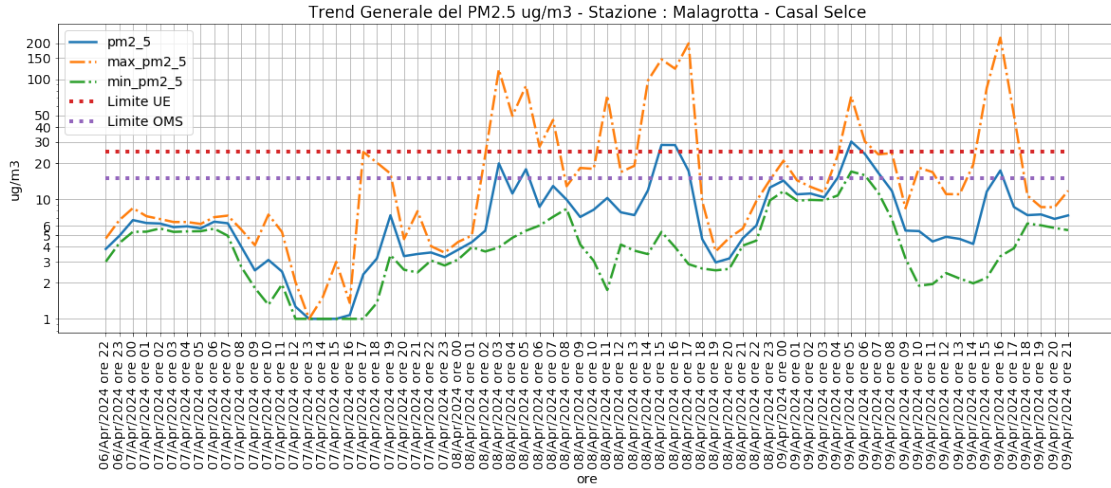
### Roma-ValleGaleria



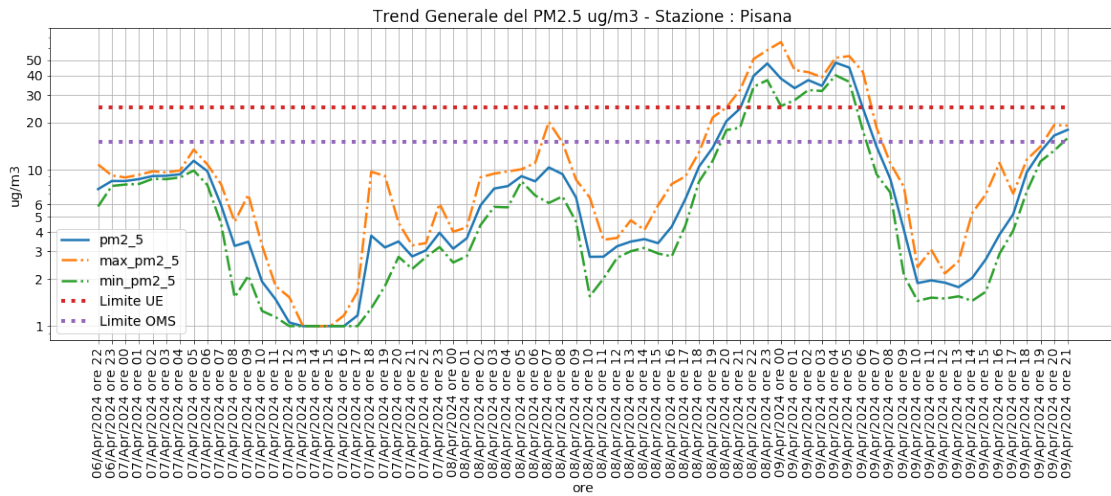
### 4.3 Grafici per PM2.5 distinti per centralina

Malagrotta - Casal Selce



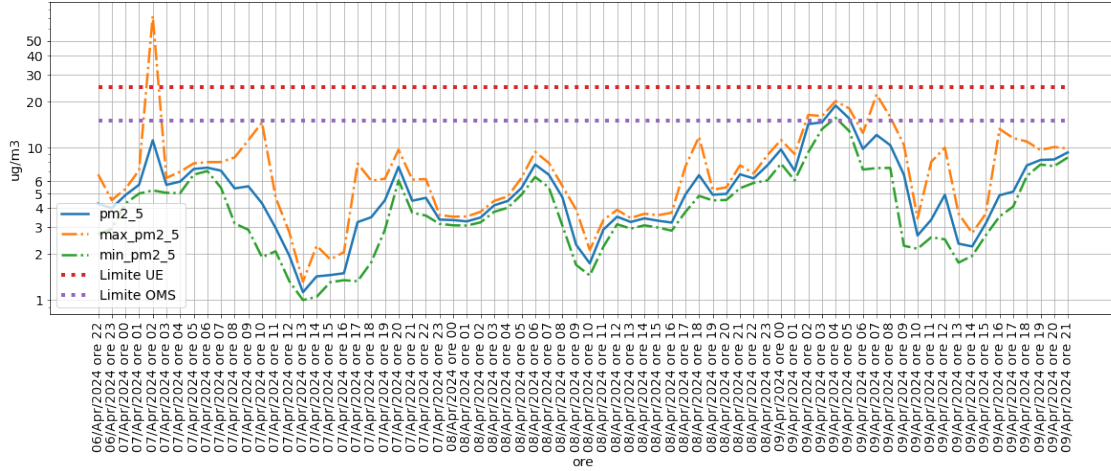


Pisana



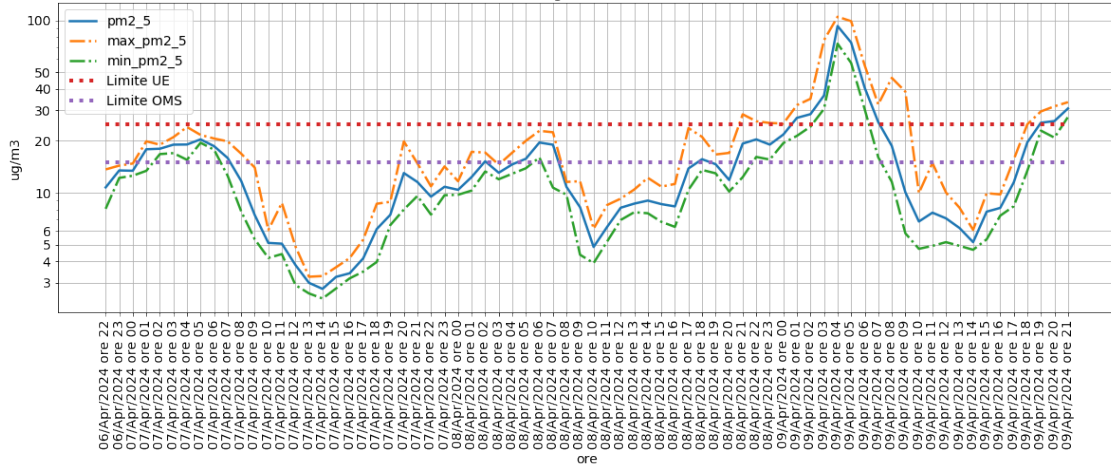
Roma Piana del Sole

Trend Generale del PM2.5 ug/m3 - Stazione : Roma Piana del Sole

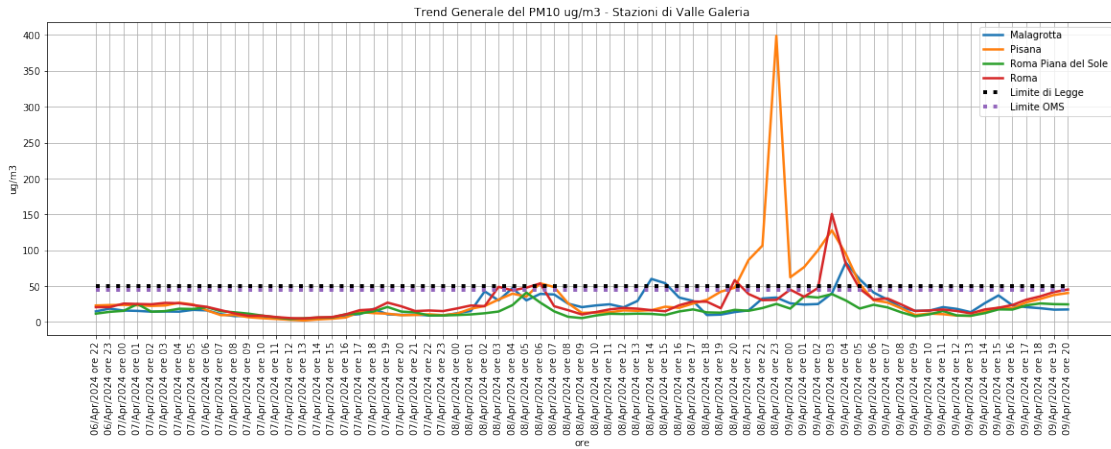


Roma-ValleGaleria

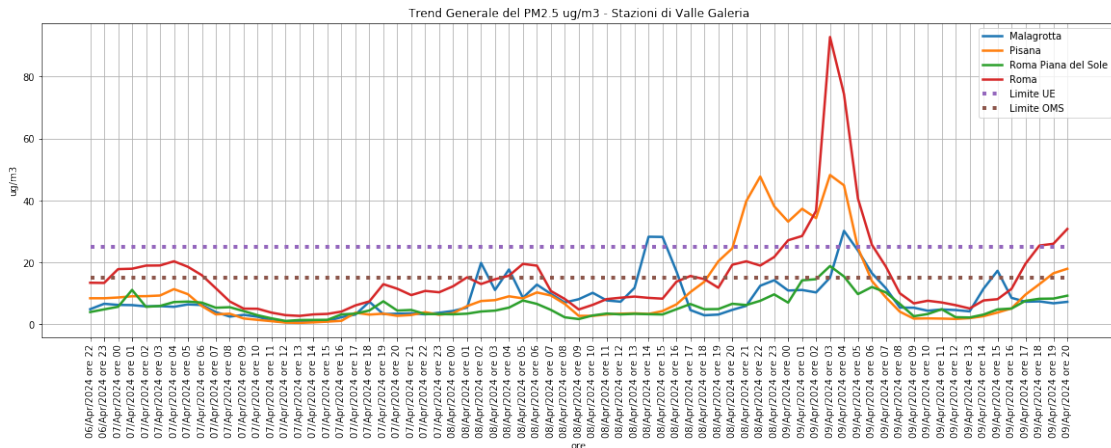
Trend Generale del PM2.5 ug/m3 - Stazione : Roma-ValleGaleria



#### 4.4 Grafici cumulativi per PM10



#### 4.5 Grafici cumulativi per PM2.5



Redatto da :

*Salvatore Moretti*

Firenze 11 Aprile 2024