

**Daily Routine at the San
Joaquin Valley APCD for
Prescribed Burn
Declarations**



Smoke Management Goals

- **Minimize Local and Regional Health Effects**
- **Minimize Nuisance Complaints**
- **Comply with NAAQS (O₃, PM₁₀, PM_{2.5})**



Synoptic Weather Pattern Associated Poor Dispersion and No Go Decisions

- ▣ **Pattern dominated by High Pressure**
- ▣ **Weak Easterly Winds Aloft Opposing Normal Thermally Driven Winds**
- ▣ **Large Scale Weak Pressure Gradients**
- ▣ **Subsidence**
- ▣ **Warmer Temperatures Aloft**
- ▣ **Warm Surface Temperatures (Ozone)**



Daily Routine for Rx Burn Declaration

- ▣ **Assess Current Smoke and Fire Situation**
- ▣ **Meteorology Review and Forecast**
- ▣ **Air Quality Review and Forecast**
- ▣ **Consensus on Smoke Forecast NWS, ARB, SJVAPCD, Adjacent Districts**
- ▣ **Coordination of Agricultural and RX burn forecasts**
- ▣ **Distribution of Information**



Early Morning Tasks

- ▣ **Previous Day Air Quality Review**
- ▣ **Atmospheric Sounding Analyses**
- ▣ **Synoptic Map Analyses**
- ▣ **Forecast Model Analyses**



Late Morning Early Afternoon

- Review of Updated Synoptic models
- Coordination with SJV Air Quality Inspectors
- Preliminary Air Quality Forecast Model Run
- NWS, ARB, and Districts Forecaster Call
- Coordination with Adjacent Districts



Late Afternoon

- ▣ **Air Quality Model Run**
- ▣ **Air Quality Review**
- ▣ **Meteorology review**
- ▣ **CB-3 Distribution**
- ▣ **Agricultural Burn Status Declaration**
- ▣ **Air Quality Forecast Distribution**
- ▣ **Write Forecast Discussion**



Assessment of Current Smoke and Fire Situation

- ▣ **Wildland Fire Use Fires**
- ▣ **Wildfires**
- ▣ **Emergency Response Fires**
- ▣ **Topography**
- ▣ **Population Exposure**



**View from Moro Rock
Looking South Across
the Middle Fork of the Kaweah**

October 9, 2003

Castle Rocks



Paradise 2 fires



October 9, 2003

Paradise 2 fires



Milk Ranch Peak



October 9, 2003

Milk Ranch Peak



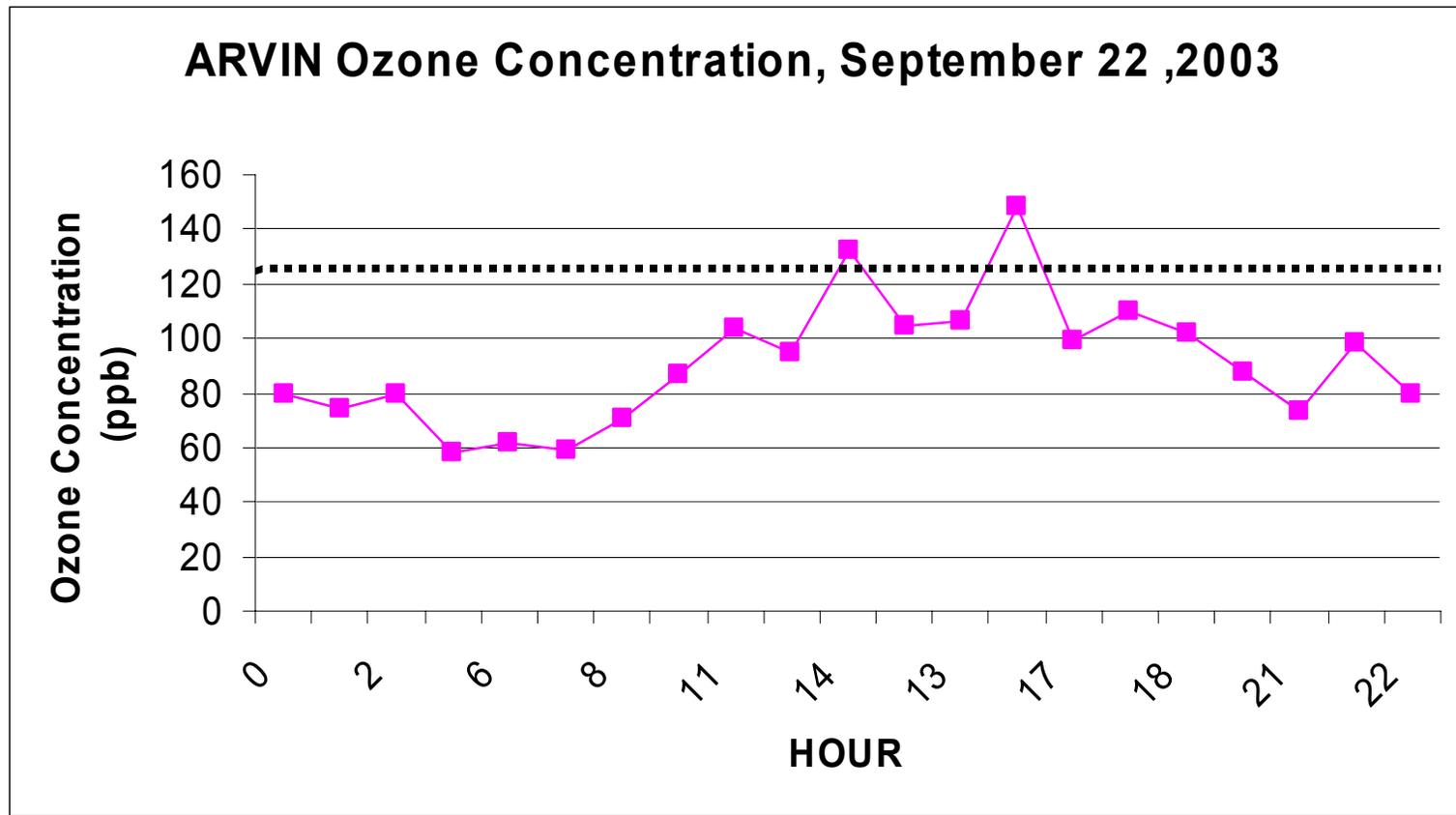
**Kaweah Middle Fork
Toward Three Rivers**



Atwood Prescribed Burn Topography

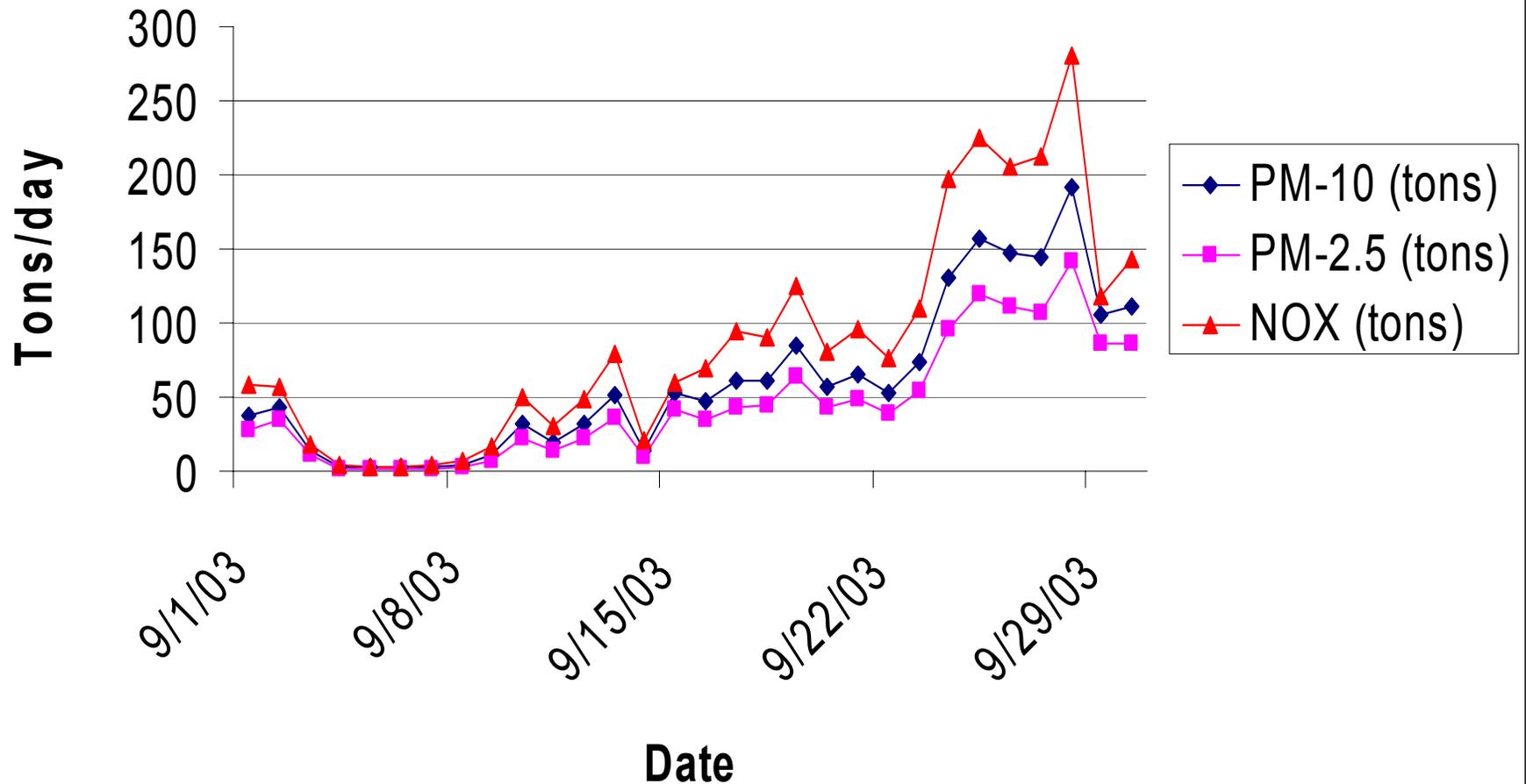


ARVIN Ozone During Fire Use Fire Events

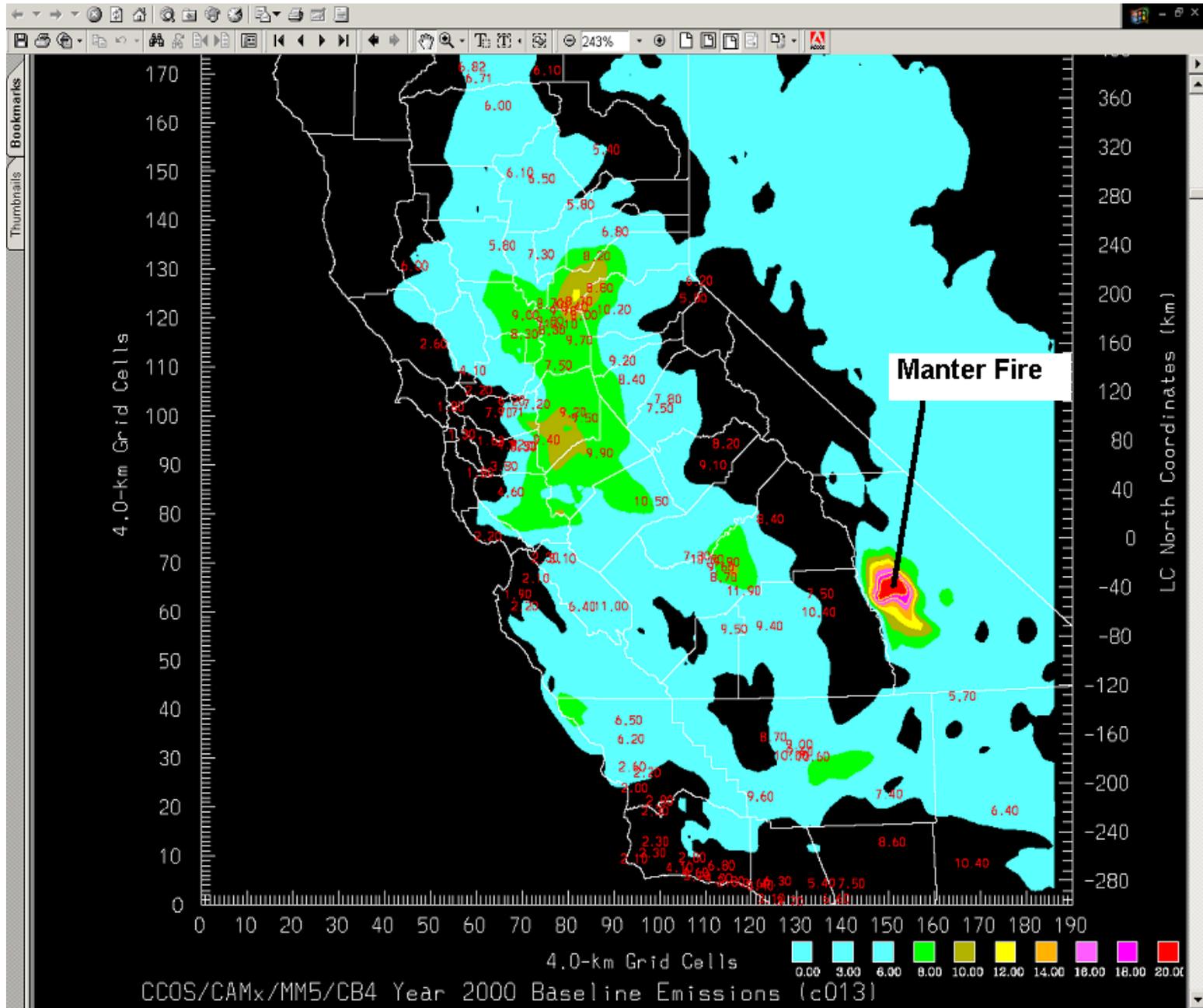


SJV Wildland Fire Use Emissions September 2003

Tons Per Day



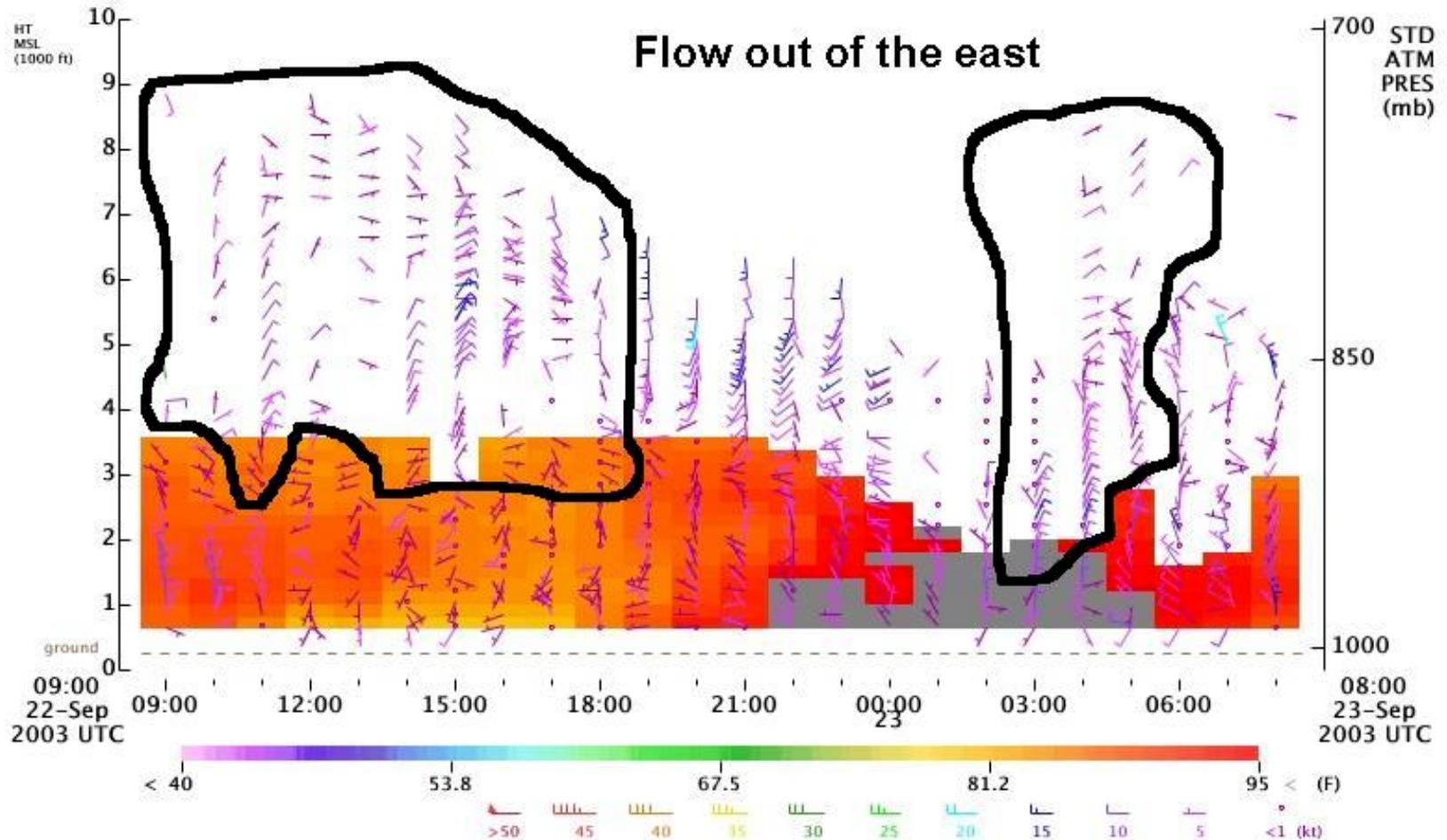
Ozone Concentrations Simulated from Manter Fire 7/29/2000



September 22, 2003, Visalia Profiler Showing East Flow Aloft



VISALIA CA Lat:36.31 Lon:-119.39 Elev:266ft
Temperature | Mode:60m | Res:60min | QC:good only
Wind Speed and Direction | Mode:105m,60m | Res:60min | QC:good only
SAN JOAQUIN VALLEY APCD



Summary

- **Assessment of Existing and Forecast Meteorology and Emissions Conditions**
- **Communication Interagency, Intragency (SJVAPCD Compliance, Meteorology, ARB, NWS, and Burn Agencies)**

