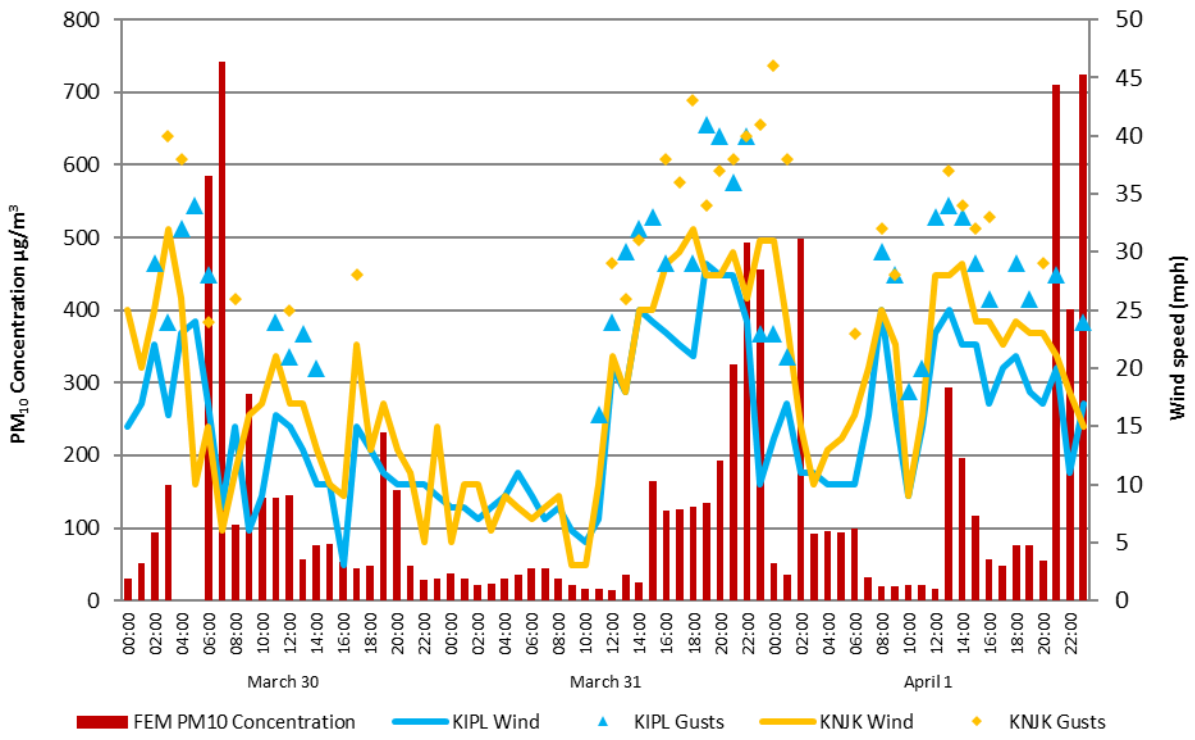
Appendix C
Correlated PM_{10} Concentrations and Winds

The following graphs illustrate the relationship between wind speeds[1] and PM_{10} concentrations at select monitoring sites within the Salton Sea Air Basin on March 30, 2014 and April 1, 2014. See **Figure 2-5** for the location of sites.

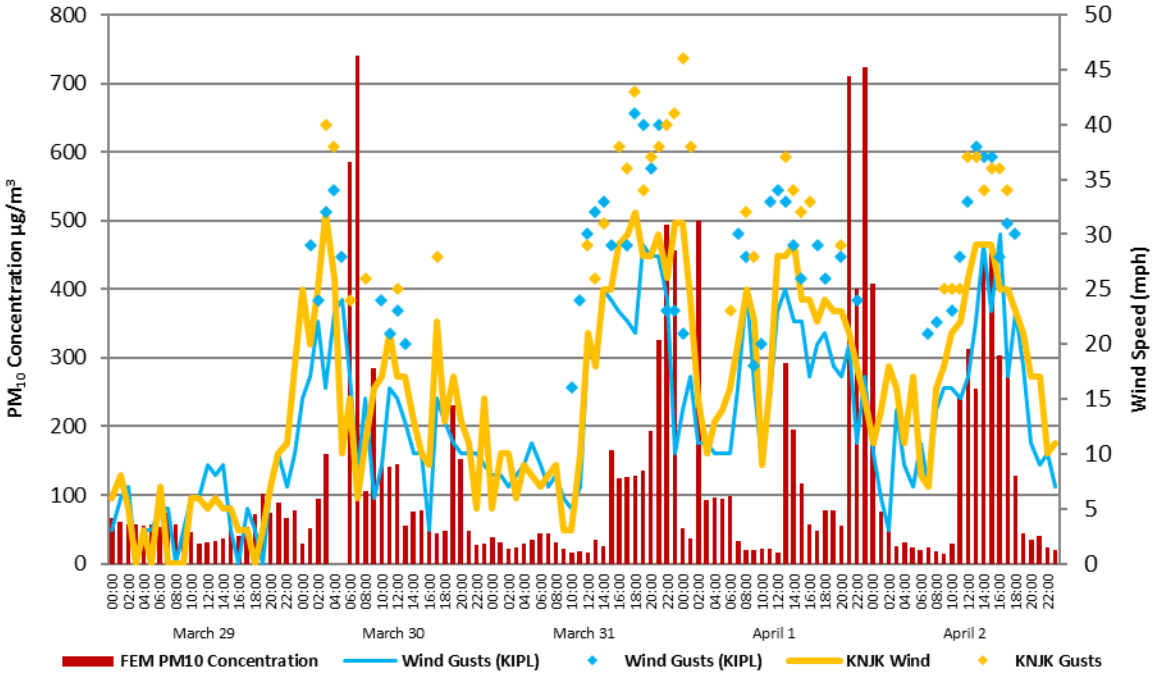
IMPERIAL COUNTY SELECT SITES
(FIGURES C-1 TO C-3)

FIGURE C-1
BRAWLEY PM_{10} CONCENTRATION & WIND SPEED



[1] National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall)[http://w1.weather.gov/glossary/index.php?letter=w].

FIGURE C-2
BRAWLEY PM_{10} CONCENTRATION & WIND SPEED



Figs C-1 through C-2: Brawley's hourly PM_{10} fluctuations are shown in a 72-hour and 120-hour time series. Increasing winds at Imperial County Airport (KIPL) and El Centro NAF (KNJK) on March 29, 2014 are closely followed by rising concentrations early on March 30, 2014. As wind increased on March 31, 2014, the same relationship is seen, as is on April 1, 2014. Air quality data from the EPA's AQS data bank. Wind data from the NCEI's QCLCD data bank. See also **Figure 5-6** for concentration fluctuations for other upstream sites

FIGURE C-3
NILAND 72 HOUR PM_{10} CONCENTRATION & WIND SPEED

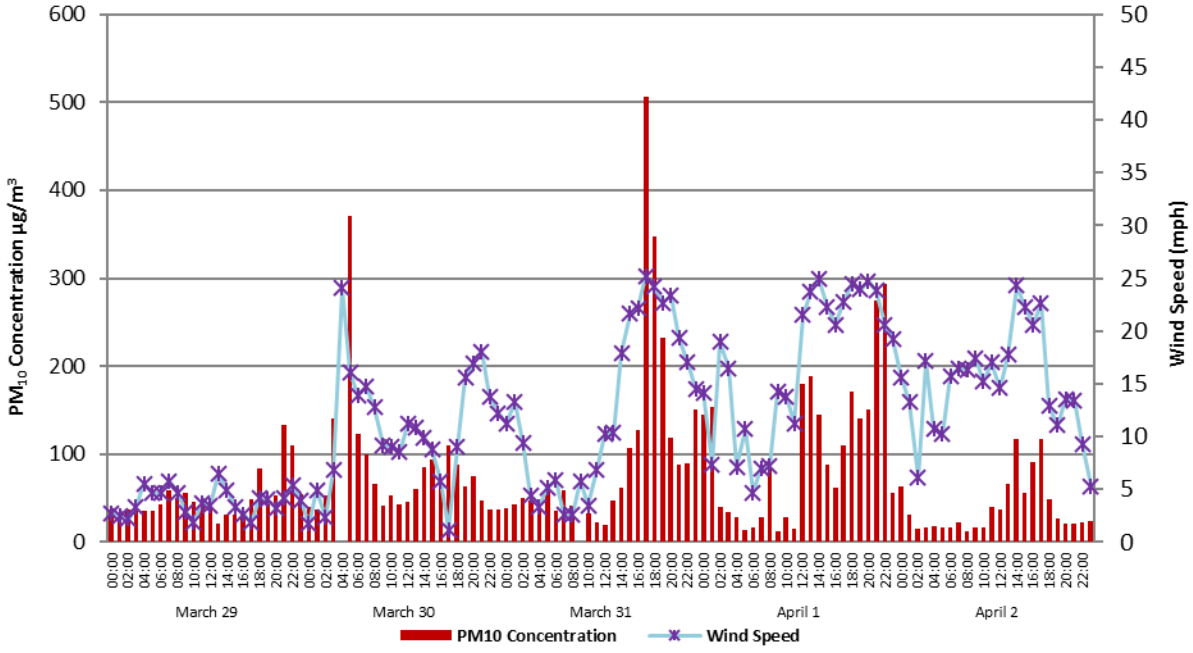


Fig C-3: Niland's hourly PM_{10} fluctuations are shown in a 120-hour time series. Although winds were not as great at Niland, increases in concentrations closely followed increases in wind speed. Air quality and wind data from the EPA's AQS data bank

EASTERN RIVERSIDE COUNTY MONITORING SITES

FIGURE C-4
INDIO (JACKSON ST) 72 HOUR PM_{10} CONCENTRATION & WIND SPEED

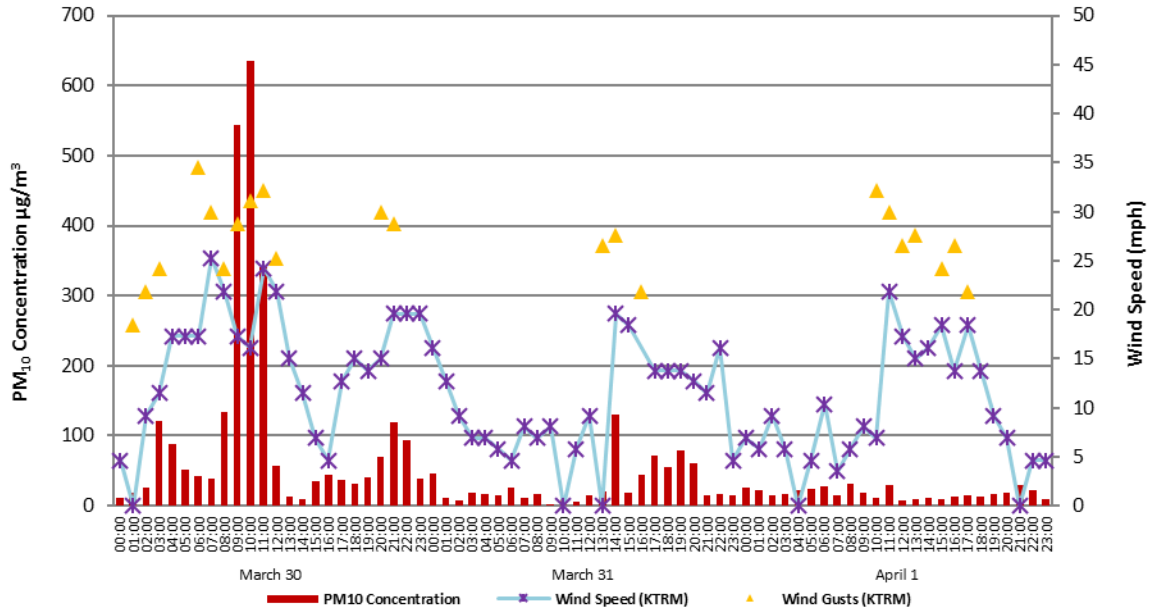


FIGURE C-5
PALM SPRINGS FIRE STATION PM_{10} CONCENTRATION & WIND SPEED

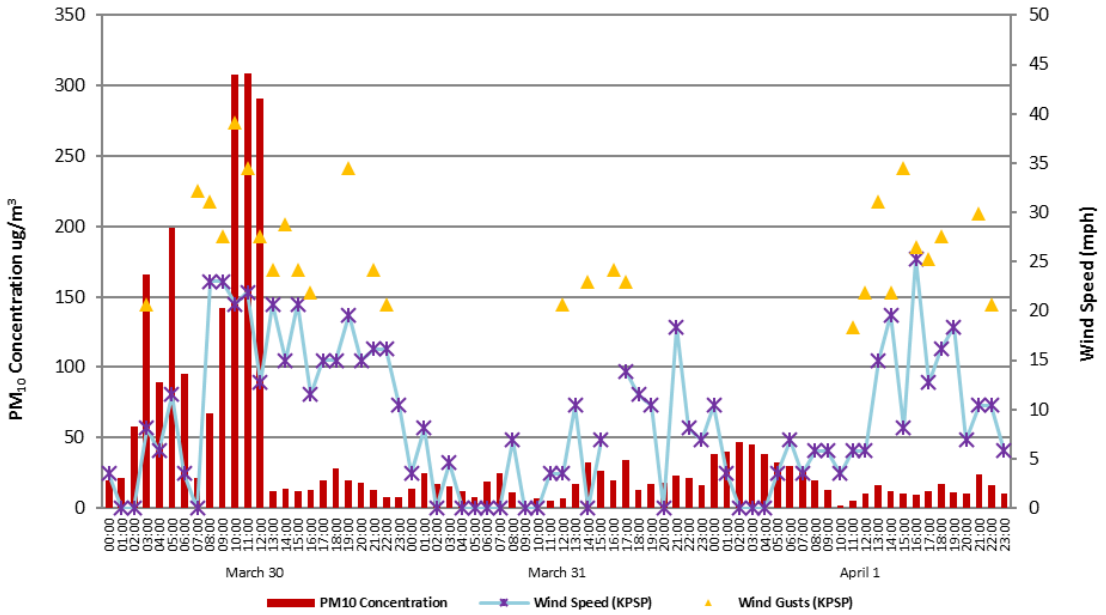
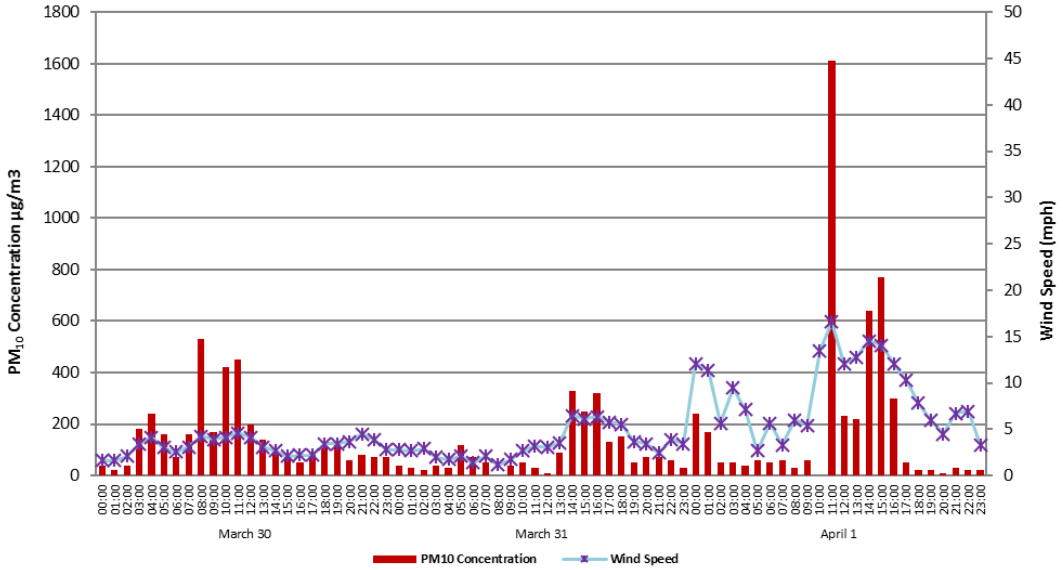
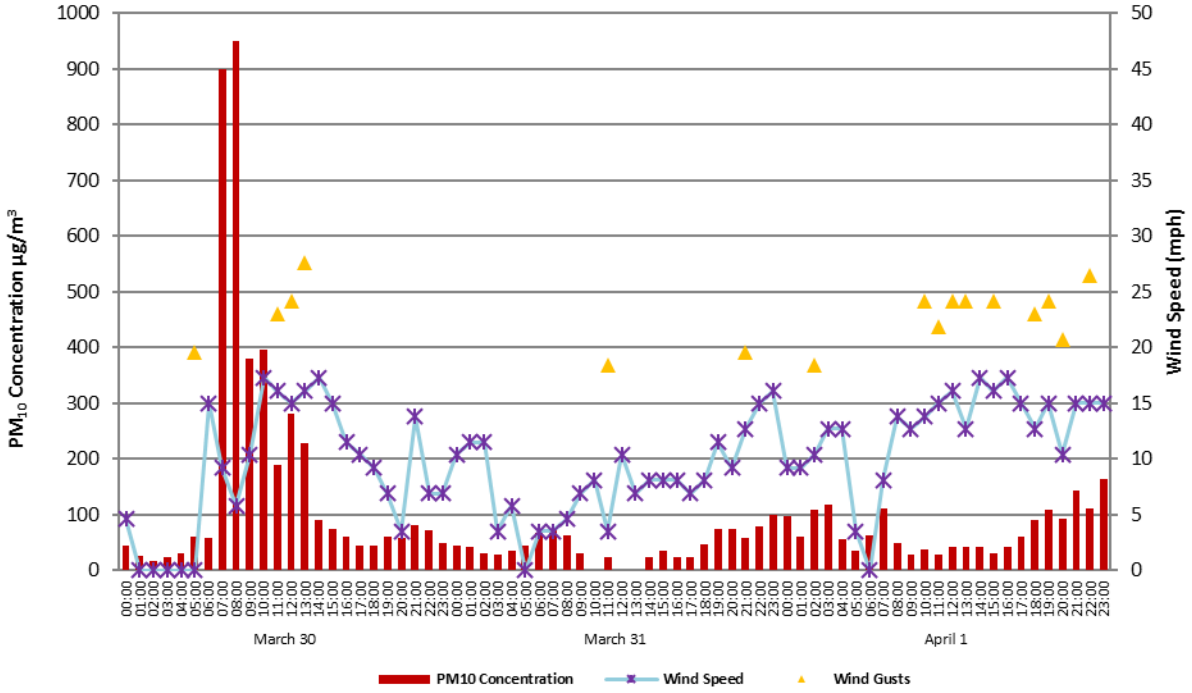


FIGURE C-6
TORRES-MARTINEZ TRIBAL PM10 CONCENTRATION & WIND SPEED



Figs C-4 through C-6: Indio and Palm Springs monitoring sites both show a jump in concentrations as wind speed increased on March 30, 2014. The Torres-Martinez Tribal (following page) shows a more robust increase in concentrations on April 1, 2014. Air quality data from the EPA's AQS data bank. Wind data for Palm Springs and Indio from the NCEI's QCLCD data bank. T-M Tribal wind from the AQS data bank

FIGURE C-7
YUMA (ARIZONA) SUPERSITE PM_{10} CONCENTRATION & WIND SPEED



Figs C-7: The monitoring site in Yuma, Arizona saw corresponding increases in particulate matter as wind speed increased demonstrating the regional impact of the three-day event. Air quality data from the EPA's AQS data bank. Wind from the NCEI's QCLCD data bank