

**TO:** Tom Wood  
**FROM:** Arron Heinerikson  
**DATE:** May 7, 2004  
**RE:** Dispersion Modeling Research Project – Wind Patterns near Moapa

Figure 1 provides a wind rose for the ozone season (May 1, 2000 – Oct 1, 2000) based on McCarran International Airport data. The wind rose shows the direction that the wind blows from. The larger the shaded area, the greater the percentage of time that the wind is in a particular direction. The winds are predominately from the South, South-West towards the North, North-East.

**Figure 1. McCarran International Airport – Wind Rose – May 1, 2000 – Oct 1, 2000**

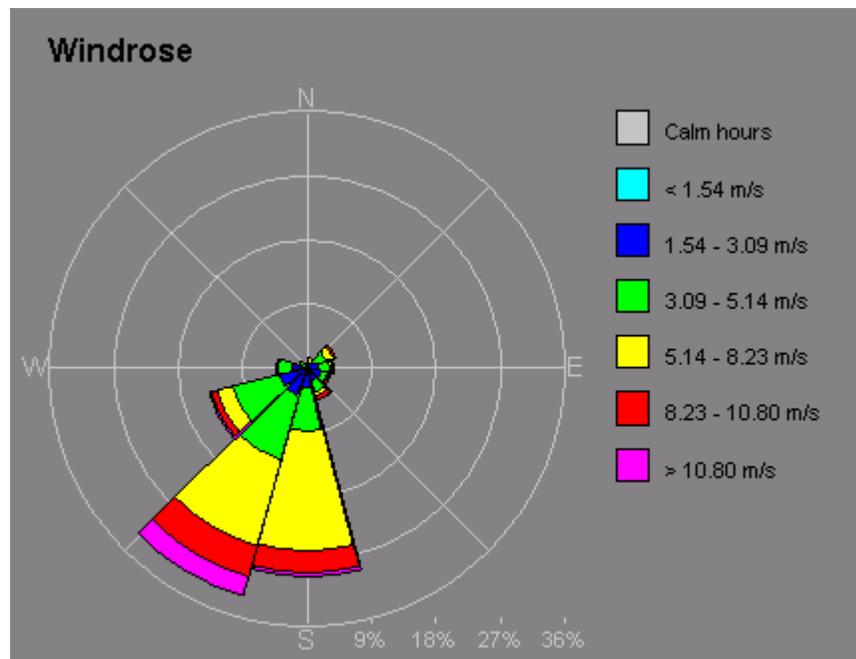


Figure 2 provides a wind rose for the entire year, 2000, based on McCarran International Airport data. The wind rose shows the direction that the wind blows from. The winds are predominately from the South, South-West towards the North, North-East.

**Figure 2. McCarran International Airport – Wind Rose – Calendar Year 2000**

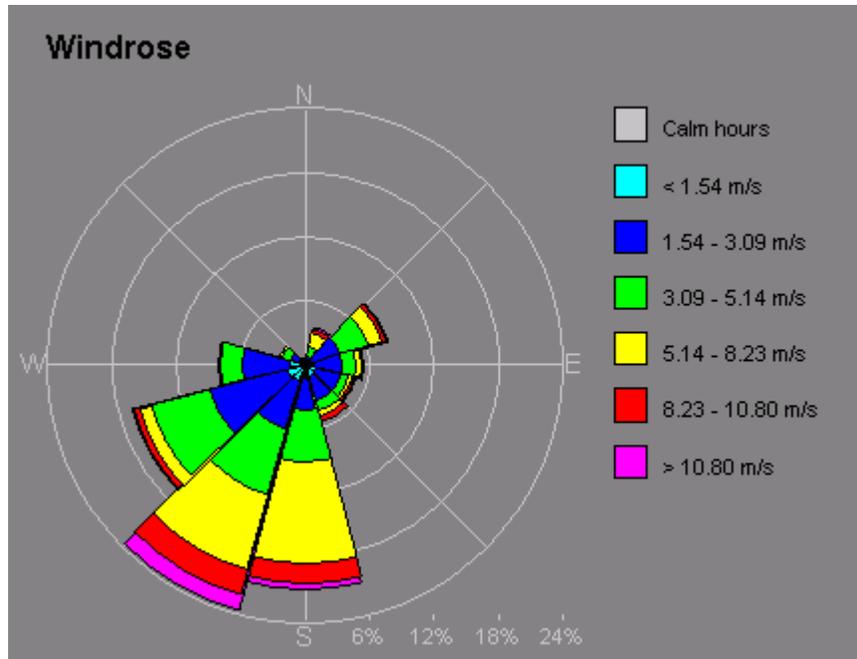
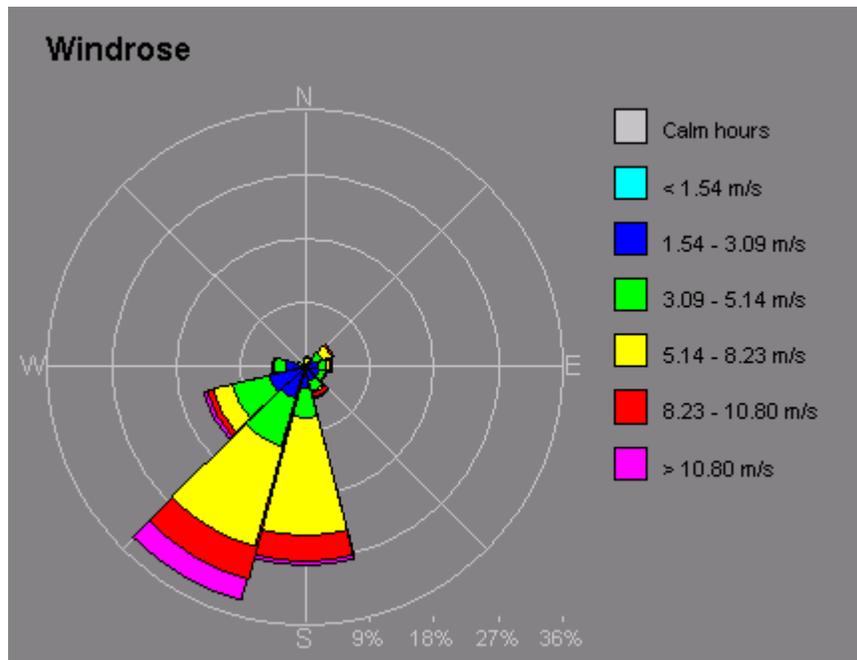


Figure 3 provides a wind rose for the ozone season (May 1, 2000 – Oct 1, 2000) based on a meteorological station in Apex, Nevada (closer to Moapa). The wind rose shows the direction that the wind blows from. The winds are predominately from the South, South-West towards the North, North-East.

**Figure 3. Apex Met Station – Wind Rose – May 1, 2000 – Oct 1, 2000**



Note that the wind roses do not change significantly with time of year or location of the meteorological station.

The Apex ozone monitor is located to the South of the proposed plant location towards Las Vegas as shown in Figure 4. It is clear from the wind roses that winds blow from Las Vegas towards Apex and Moapa. Sources in the Moapa area would have little, to no, impact on monitored concentrations in the Las Vegas area.

**FIGURE 4. RELATIVE LOCATIONS OF WEATHER STATIONS AND MOAPA TRIBAL LANDS**

