

PM10 Hot Spot Modeling

Lessons Learned for Phoenix, AZ

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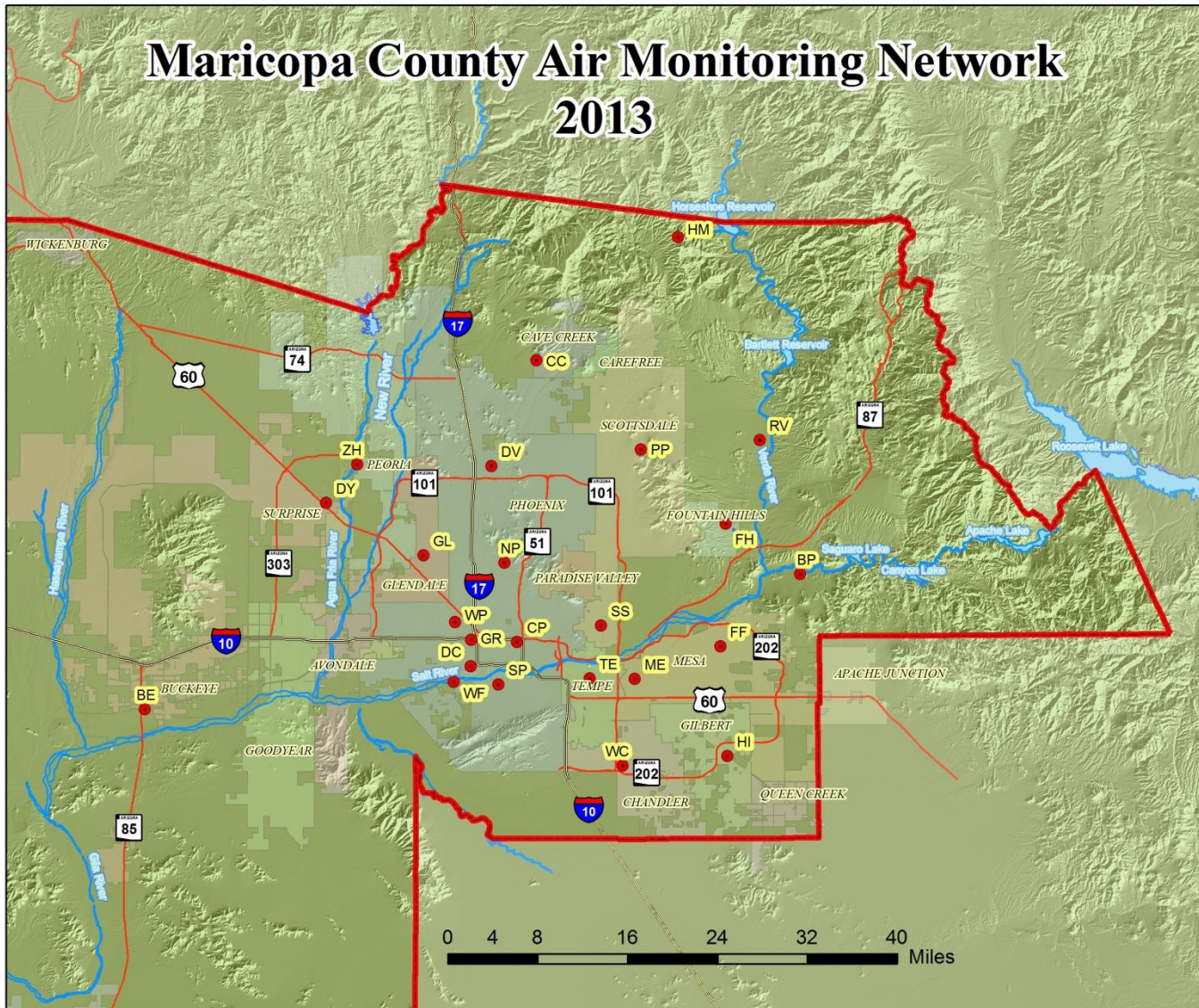
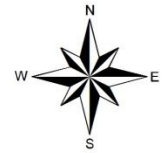
Phoenix PM10 Nonattainment Area Status – Serious

- ▶ **5% plan submitted 2012**
- ▶ **Exceptional events (131 approved)**
- ▶ **5% plan SIP approval proposed
Feb 2014, expected final June 2014**
- ▶ **Clean data finding expected 2014**

PM10 Hot Spot Methodology

- ▶ **Conformity and/or NEPA**
- ▶ **Environmental justice concerns**
- ▶ **Interagency consultation**
 - Models and input values**
 - Meteorology – what is upwind?**


Maricopa County Air Monitoring Network 2013



- SITE ACRONYMS:**
- BP=Blue Point
 - BE=Buckeye
 - CC=Cave Creek
 - CP=Central Phoenix
 - DC=Durango Complex
 - DY=Dysart
 - FF=Falcon Field
 - FH=Fountain Hills
 - GL=Glendale
 - GR=Greenwood
 - HI=Higley
 - HM=Humboldt Mountain
 - ME=Mesa
 - NP=North Phoenix
 - PP=Pinnacle Peak
 - RV=Rio Verde
 - SP=South Phoenix
 - SS=South Scottsdale
 - TE=Tempe
 - WC=West Chandler
 - WF=West 43rd Avenue
 - WP=West Phoenix
 - ZH=Zuni Hills

- Legend**
- County Line
 - MCAQD Sites
 - Interstates
 - State Routes
 - Rivers
 - Lake

Map Created in March 2014 by Ronald Pope



Air Monitoring Sites Current as of 12/31/2013

Background for Design Values

- ▶ EPA guidance – Chemical Transport Model (CTM) for background
 - 5% plan used back trajectory analysis
- ▶ Monitor values - representative
- ▶ Exceptional event DAYS excluded
- ▶ Distance weighted averaging

Existing Freeway Widening Loop 101

- ▶ **Environmental Assessment with Categorical Exclusion update**
- ▶ **Process**
 - Re-entrained road dust**
 - Highest Vehicle Miles Traveled = highest emissions**
- ▶ **Documentation and public notice**

New Freeway Loop 202

- ▶ **Draft Environmental Impact Statement 2013**
- ▶ **Process**
 - Large project area
 - Representative locations
 - Controversial project
- ▶ **Documentation**

Summary and Future Challenges

- ▶ **Categorical findings**
- ▶ **Compare future projects to these**
Includes next phase of Loop 101
widening