

## Module 8: Communications

Objectives:

- Involve the public in planning process prior to any monitoring
- Reporting monitoring results
  - Data presentation methods
  - Data repositories
  - Assessment of air quality data
  - Provide data to decision-makers
  - Provide data for source identification and control strategies
  - Communicate results to the public

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## U.S EPA's Air Quality System (AQS) A Repository for Data From Across the U.S.

- Ambient Air Pollution Data
- Ambient Air Meteorological Data
- Descriptive Information About Each Monitoring Station
- Data Quality Assurance/Quality Control Information

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## U.S. EPA's AQS Data Uses

- Assess Air Quality
- Assist in Attainment/Non-attainment Designations
- Evaluate State Implementation Plans for Non-Attainment Areas
- Perform Modeling for Permit Review Analysis
- Assist in Preparation of Reports to Congress

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## Data Presentation Methods To Decision Makers

- Maps
- Plots
- Data spreadsheet
- Frequency tables
- Frequency polygons
- Histograms
- Pie charts

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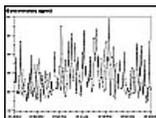
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## Examples of Data Presentations to Decision Makers

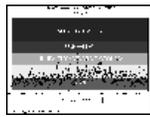
Maps



Plots



Data



Plot AQI  
Values

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## Data Presentation Methods to the Public

- Radio
- Websites
- Newspapers
- Air quality index
- Flyers
- Public meetings

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### Air Quality Index

Descriptors	Cautionary Statement
Good 0 – 50	No message
Moderate 51 – 100	Unusually sensitive individuals
Unhealthy for Sensitive Groups 101 - 150	Identifiable groups at risk - different groups for different pollutants
Unhealthy 151 - 200	General public at risk; sensitive groups at greater risk
Very Unhealthy 201 - 300	General public at greater risk; sensitive groups at greatest risk

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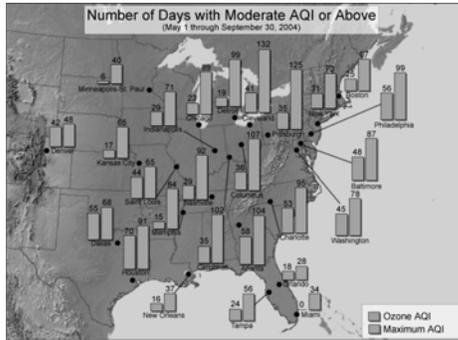
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### Map Chart and Bar Charts Used For Air Quality Index Forecasting



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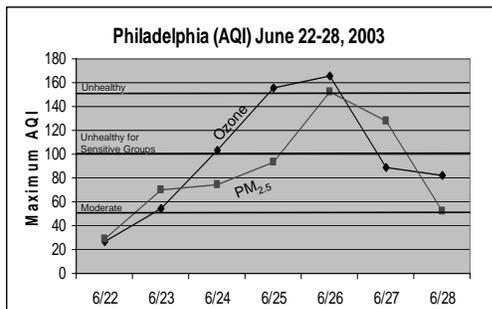
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### Multi-Pollutant Trend Chart



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### SO2 Levels Used to Develop a Frequency Table

Days	SO <sub>2</sub> Concentration, ppb
1	57
2	72
3	159
4	44
5	110
6	68
7	59
8	56
9	60

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### SO2 Frequency Table

Class Interval, ppb	Freq. Of Occurrence	Relative Frequency
25-40	0	$0/9 = 0$
40-55	1	$1/9 = 0.11$
55-70	5	$5/9 = .55$
70-100	1	$1/9 = 0.11$
100-125	1	$1/9 = 0.11$
125-160	1	$1/9 = 0.11$

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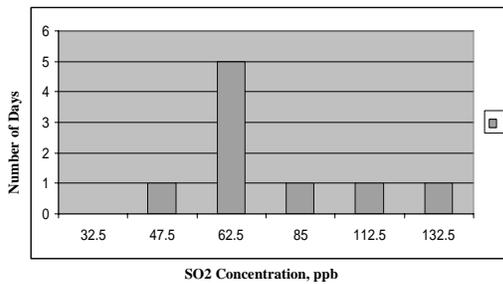
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### The Histogram



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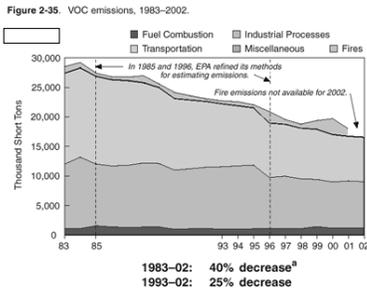
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### Cumulative Horizontal Bar Chart



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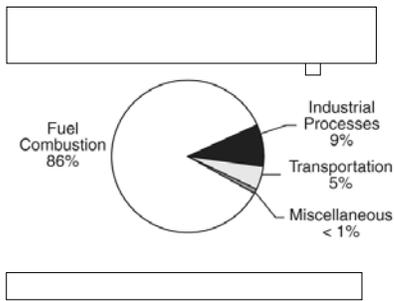
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### Pie Chart of U.S. SO<sub>2</sub> Emissions By Source Category (2002)



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### Communicate to Public

- Radio station news or show
- Local television station
- Newspaper diagrams and graphs
- Influential religious and public leaders
- Brochures and websites

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### Why Involve the Public?

- A requirement in the U.S. of environmental status
- Community as right to be heard
- Community most qualified to state conditions, concerns, and needs

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### Address the Needs of the Community By...

- Providing better notice of availability of draft documents
- Improving mailing lists
- Responding better to information requests
- Using informal resolution techniques such as alternative dispute resolution

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### Fundamental Questions to Address

- How early do I need to let the community know what I am planning?
- Which key federal documents provide guidance and the broader framework for addressing environmental considerations?
- Who do I need to talk to?



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**Address the Needs of the  
Community By...**

- Demonstrating that the local citizens will share the economic benefits of a facility
- Agreeing to compensate homeowners if housing values are reduced

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**Module 8 Review**

Objectives of Module 8 were to learn how to report monitoring data. Let's review some of these.

- Reporting results
  - Data presentation methods
  - Assessment of air quality data
  - Provide data to decision-makers
  - Provide data for source identification and control strategies
  - Communicate to public

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